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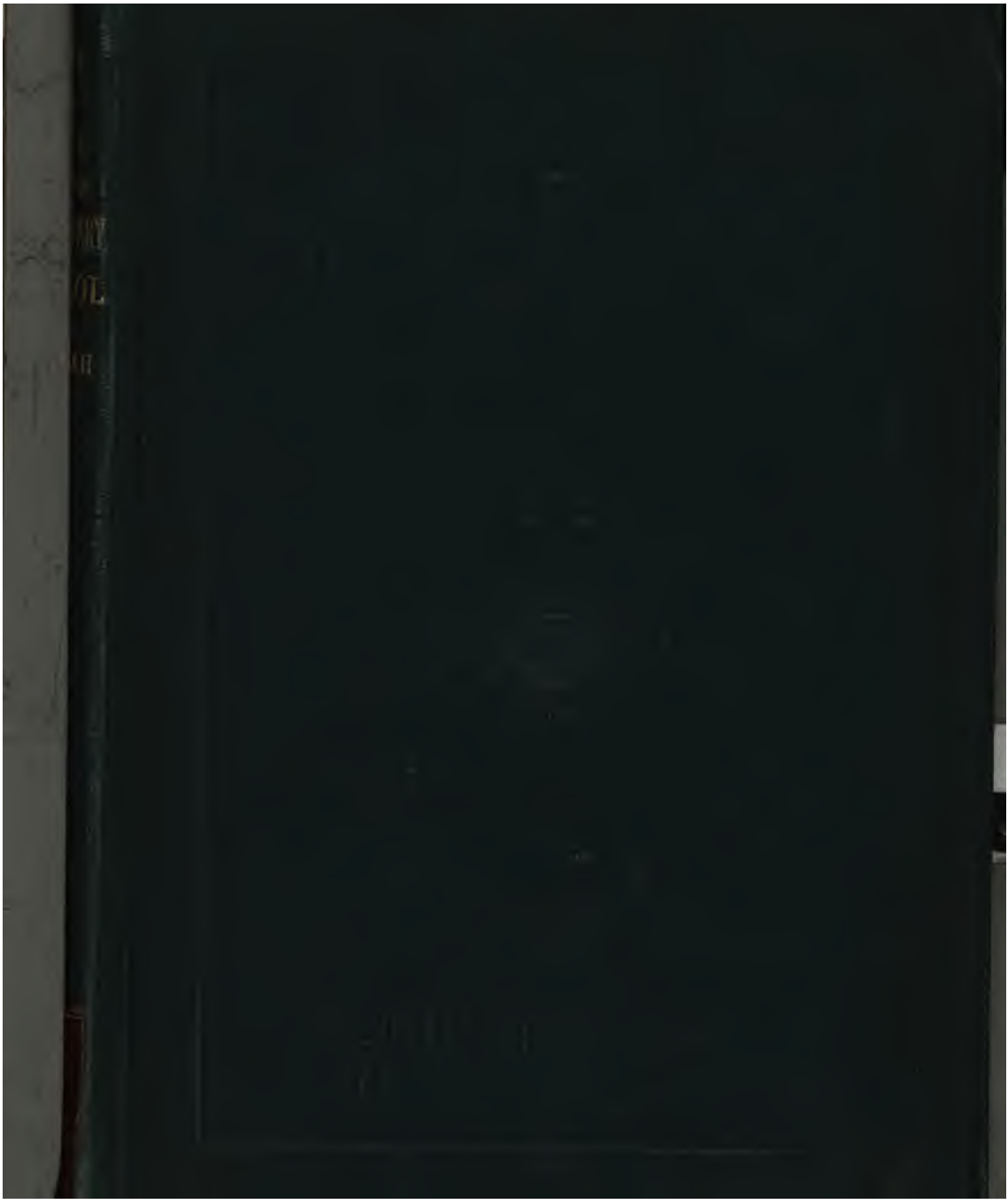


TIME AND TUNE

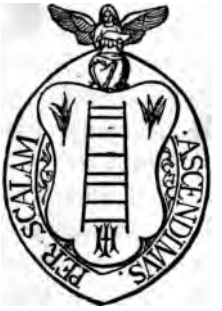
IN

THE ELEMENTARY SCHOOL.

A NEW METHOD OF TEACHING VOCAL MUSIC.

BY

JOHN HULLAH.



LONDON: LONGMANS, GREEN, READER, & DYER;
AND
LAMBORN COCK, 63, NEW BOND STREET.
1875.

LONDON
SAVILL, EDWARDS AND CO., PRINTERS, CHANDOS STREET,
COVENT GARDEN.

PREFACE.

WILHEM's Method of Teaching Singing "adapted" by me "to English use," was published "Under the Sanction of the Committee of Council on Education," in the year 1840. The first issue, exhausted in a few weeks, was immediately followed by a second, presenting many alterations and improvements. Not, however, till 1849 was the work "revised and reconstructed"—finally, as it has so far proved—for the second time. For a quarter of a century this third edition has maintained a circulation both large and steady. Large as it has always been however, and larger as it has recently become, its magnitude is but a very inadequate measure of the extent to which the *Method* of Wilhem has been employed; for the publication of the "Exercises and Figures" on "Large Sheets" has rendered it available in places innumerable, whereto a new copy of "The Manual" has only occasionally found its way. During recent visits to almost every part of Great Britain I have found sets of these Large Sheets, often purchased many years since, which have served, and may still serve, for the instruction of many successive generations of scholars; among other places, in those invaluable Schools of Music, our Cathedral Choirs.

This circulation notwithstanding, I had long meditated still another "revisal and reconstruction" of the method, and had gradually accumulated a large mass of material in reference to it. When, however, about three years since, I had got some of this material into shape, I found

myself at work on, not a new edition, but a new book, wherein, though the principles of an existing one might be worked out, the manner of working would prove altogether different. To grace such a work with an imprimatur granted to another, bearing little at least external likeness to it, was not to be thought of; and to connect it with the name of the great apostle of popular musical instruction in France would have been equally an injustice to him, and—I hope it is not unbecoming to say—to myself. After much consideration I resolved to leave the Method as I had last left it, in 1849, still accessible to those to whom it might remain an acceptable, if only because an accustomed, text-book; and to work out all new processes in a new work, bearing a title by which it might be unmistakably distinguished from the old one.

"Time and Tune" includes hardly a sentence or a measure to be found in "The Manual" of 1849; and it differs from that work in a still more important particular—the employment of the fixed or immoveable *Do*, *with considerable modifications of detail.*

As Inspector of Music in Training Colleges I have had unusual, indeed unequalled, opportunities of testing results of the two well-known methods of using the Sol-fa syllables. I am not disposed to overrate "results," as evidence for or against methods of teaching. Not to say that "as is the master so is the school," "results" are too often affected or disturbed by influences which we cannot trace, and which we could not control were we able to trace them. The results, however, which have come under my notice might seem to be numerous enough to justify generalization, which it would be unsafe and unfair to make from fewer instances. I cannot hope to record my impression of these more briefly than in the following extracts from my Report for the first year of my inspection, 1872:—

"The books of instruction and rudimentary exercises in use in the training colleges are many, but the principles on which they are based are two only —those known as the 'moveable' and the 'immoveable *Do*,' in the one of which a given syllable is assigned to every note in a given scale without

reference to its absolute pitch, and in the other the same name is always given to the same note whatever be its place in whatever scale.

"The former of these methods of sol-faing, as it is incomparably the older (dating back to the very infancy of modern musical art) is also incomparably the more attractive. The relations of musical sounds one to another are more easily appreciated, and for practical purposes recognised, by average students, as the occupants of certain places in a given scale than in any other capacity or way. Only to persons of very fine musical organization is it given (often very early in life) to appreciate and recognise sounds *absolutely*, —to recognise C as C, whether it be the dominant of F, the supertonic of B ♭, or any other constituent of any other key. Were every piece of music confined within the 'narrow bounds' of the scale in which it begins and ends, there would be as little question about the practice as there is about the theory of the 'moveable *Do*.' For nobody questions the great—the supreme —importance of establishing in a student's mind the relations of one note to another as the occupant of a particular place in the scale. But notoriously few pieces of music remain throughout in the same key. The shortest and
b simplest melody generally 'modulates' into the key of its dominant, relative minor, or other. The moment it does this the moveable *Do* becomes, no doubt, a good because a severe test of the science of the proficient, but in the same degree it ceases to be a help to the beginner. It provides admirably for *note* relationship, but not at all for *key* relationship. So far from helping the tyro in vocal music over his chiefest real difficulty—that of dealing with 'accidentals'—it breaks down at the very first; for it leaves him to determine whether this accidental indicates modulation (and if so into what key), whether one of the 'alterations' needed for the minor key, or a departure from the diatonic to the chromatic *genus*,—points which in many cases even a proficient might be unable to determine without reference to other 'parts' possibly not under his eye."

This difficulty has suggested a variety of contrivances. Some teachers call *every* note accidentally sharpened *Si*, and every note accidentally flattened *Fa;* others call *Fa* ♯ *Fi*, *Si* ♭ *Sa*, and the like. A few even make no changes whatever in the Sol-fa syllables on account of modulation; calling altered notes like unaltered, *Fa* ♯ still *Fa*, and *Si* ♭ still *Si;* applying to a new leading note the syllable they have hitherto applied to the subdominant, and to a new subdominant that which they have hitherto applied to the leading note.

"If the 'moveable *Do*' is not to be moved, save in protracted modulation, and if, in a piece for the most part in C, F ♯ may be, as assuredly I have often heard it, called *Fa* or even *Fi*, then I ask why it should not be called so first as last, and students be spared what seems gratuitously difficult, and certainly *is* glaringly inconsistent.

"And here I must record my experience that the use of the 'moveable *Do*,' as it has come under my notice, does involve both difficulty and inconsistency. In adapting the sol-fa syllables on this system to musical notes I have remarked, on the part of individual students, repeated hesitation as to their names, ending as often in their giving them incorrectly as correctly. Of the bodies of second-year students taught on the 'moveable *Do*' principle who sol-faed a piece I put before them in the course of my examination, *not one* noticed or acknowledged the most striking feature of it—that the second subject was not, like the first, in B ♭, but in F! With charmingly unconscious violation of the principles so painfully instilled into them, they went on calling the third of the new scale *Si*, the fourth *Do*, and the seventh *Fi*, or even *Fa;* sounding the notes, however, very often quite correctly, and thereby, of course, condemning more conclusively the system on which they supposed themselves to be working. As for individuals, I found few of them who could *sol-fa* at all in more than two keys besides that of C. The best readers taught on this principle declined to avail themselves of its help, and either called *all* notes *La*, or sang the *words*, with more or less correctness. I find in my journal memoranda made at the moment like the following: 'Utter confusion about "moveable *Do*;"' 'disposition on the part of students to shirk sol-faing altogether;' 'notes called by any names but the right,' &c. &c."

In its application to the minor mode the shortcomings of the moveable *Do* are however still more manifest. Here the Tonic is called *La*, and the leading note to it *Si;* so that *Si*, which the student has so far been taught, and is still taught, to associate with the major second above *La* and the minor second below *Do*, he is now told to associate with the minor second below the former, and the diminished fourth below the latter.

There are other objections to the moveable *Do*, wholly irrespective of the difficulty or impossibility of its consistent application, one only of which I will briefly notice—the impediment its use presents to any even

approximate recognition of pitch. Nobody, I believe, ever attempted to teach, or conceived the possibility of teaching, by "absolute pitch." Nevertheless an appreciation of it, even if only approximate, is notoriously of great practical use. With a moderate amount of practice, a student of singing becomes conscious by what mechanical act this or that note is producible from his own voice, and with what sensation its production is accompanied. At the least he soon learns that this or that note is nearer to the top of his voice than the bottom, or nearer to the middle than either. Now if the note G on the treble stave is one minute to be called *Sol*, another *Fa*, another *Do*, and so on throughout the septenary, what chance is there of his understanding, and remembering the unalterable scientific fact that G has an existence wholly independent of its position as a member of any scale whatever?

But that the moveable *Do* is a clumsy and imperfect instrument, even in skilled hands, and a hindrance rather than a help in unskilled, does not at all prove that the fixed *Do*, as used up to the present time, is a perfect instrument, unsusceptible of modification or improvement. On the contrary, I have long believed, and recent experiments, conducted under considerable disadvantages, have confirmed this belief, that its use might be modified to such an extent as to remove every reasonable objection that has ever been brought against it. In what way this is to be done, I have fully explained in an appendix* to this preface; and in the work which follows, the explanation is practically applied. With this exception, there is no process recommended or enjoined in "Time and Tune," which has not, for many years past, been in use among the best teachers of Wilhem's Method. Some of these processes—I do not speak of those which could only have become traditionally known—have often I find, been altogether ignored, in spite of attention being continually called to them in the Manual. In some instances, I have found that the "manual stave" is not,

* Another extract from my first report.

nor ever has been, used; in others, that the practice of "reading in time" has been utterly neglected. By one class, half the exercises have been omitted; by another the pieces with words have never been solfa-ed. The necessity for these and similar processes may not be very apparent. I can only say that their value has been tested, on pupils of every conceivable age, status, and capacity, not only by me, but by all my most valued fellow-labourers in the same field, again and again; and the result of our experience is, that they will be found multiplied rather than reduced in the following work. The plan of this I will now briefly summarize.

The *order* in which the several branches of the subject are brought under the notice of the student is still uncommon; in the year 1855, when the Preface from which the following extract is made was written, it was, I believe, quite new. It is as applicable to the present work as to that which it first prefaced, my "Rudiments of Musical Grammar."

"We often find the earlier chapters of rudimentary treatises, whether on music or any other subject, occupied, not with attempts to convey ideas of the *things* to be first studied, but with explanations of the *symbols* which represent them,—many of these latter, perhaps, not being called into requisition till an advanced period in the study, when they have to be learned a second time. Thus the beginner in music is made to exhaust the subject of the stave before he is in the least informed as to the nature of the scale; or called upon to consider the peculiarities of five-crotchet time, while as yet he has no practical acquaintance with the first principles of rhythm. In the following work no attempt is made to introduce the student to the alphabet of music till he has learned something about *music*, or, more properly, the musical *system* itself; nor is he instructed in the different kinds of measure, nor even made aware of the existence of bars, until he has acquired some idea of the limits of a musical *phrase*, and the nature of a musical *foot*,—things altogether independent of any forms by which they may be represented, and which, as they certainly existed ages before the invention of the present musical alphabet, will as certainly exist ages after that ingenious contrivance has become matter of history, or even of speculation."

In the course of the first twelve chapters of "Time and Tune," the pupil is taught the relations of the sounds of the natural scale, and even

of some "altered" sounds, one to another, and the proportionate durations of sounds in common use, without the employment of the symbols by which they are commonly represented.* With these he is next made acquainted; turning to account and confirming his new knowledge at once, in a short series of exercises on the intervals found in the natural scale. The "altered" sounds, in most frequent use in relation to the tonic of the natural *scale*, with which he will already have made some acquaintance, are then first presented to him in musical notation; and shortly after, those same sounds as constituent parts of other scales. The study of intervals is then resumed, and the important musical fact that the melody or tune of all major scales is one and the same—that *La* and *Si* ♭ (*Se*) have the same places and properties in the scale of *Fa* as *Mi* and *Fa* have in the scale of *Do*—is illustrated in the "transposition" of the series of exercises in the natural scale which he has just passed through; these being interspersed with short and simple songs in which the particular interval under consideration is the principal feature. The order of scales and signatures, and the relations of the former one to another, are next considered and, as a natural sequel to these, "modulation," illustrated by still another series of exercises wherein the two commonest modulations—those into the dominant and subdominant of the original key—are made, through the successive alteration of every interval. The minor mode and the modulations to which it is subject are then fully treated and copiously illustrated; and the work concludes with a series of examples in the scales of *Fa*, *Si* ♭, *Mi* ♭, *Sol*, *Re* and *La*—the scales after that of *Do* in most common use—every one of which presents instances of modulation into the scales major or minor related to it. In the course of these exercises all the varieties of rhythm commonly met with are gradually

* These chapters, which form a short course of themselves, need no books—only two or three "Figures" and the always ready "Manual Stave" of the Teacher. I recommend that the books be withheld from the pupils till these chapters have been thoroughly mastered.

introduced; "simple" times and their "compounds" are made known, and every form of measure, common in each, practically treated. Towards the close of the work, the bass, alto and tenor staves are explained—as they are alone explicable—in their relation to the great stave of eleven lines.

As in Wilhem's "Manual," no names for notes but the Sol-fa syllables are used in "Time and Tune." It is desirable that no other be employed simultaneously with these. Their alphabetical names are still however so familiar to the majority of English musicians, and so extensively used in English musical literature, that those who carry their study and practice further than is provided for in the following pages, must eventually make themselves acquainted with them. We have not yet profited by the example of the French and Italians, who use no names but *Do, Re,* &c., in reference as well to instrumental music as vocal, to theory as to practice of whatever kind. Continental organ builders and pianoforte makers even write these names on their pipes and against their strings, and publishers use them to indicate the keys of the compositions named in their catalogues.

I had intended accompanying each chapter with a catechism and some directions for the further cultivation of that "sympathy of eye and ear" which it is the special object of "Time and Tune" to promote. The book is however already somewhat larger than I had hoped to make it, and it is unadvisable to add to its bulk and therefore of necessity its cost. These complements may hereafter be put forth in a separate form, as also the whole of the "figures" on large sheets. For the present it will be necessary to draw a few of the most important of these, Figures 1, 2, 3, and some others, on a black board.

The intelligent teacher will of course not content himself with *reading* the paragraphs in Roman type as they stand: nothing at least can be further from my intention than that he should do so. He will rather, it may be hoped, regard them as matter which he is to put into his own words, amplifying and illustrating them as occasion may dictate.

November, 1874. J. H.

APPENDIX.

Memorandum on the Application of Sol-fa Syllables to Musical Notes.

THAT the association of a given syllable with a given sound is a help to the beginner in vocal music, and even at times to the proficient, is admitted in almost every existing method of teaching. Whether serving to indicate the position of notes in a given scale, or in the great system of musical sounds, the sol-fa syllables or something answering to them—letters or numbers—have evidently been found necessary or useful in, at least, the first steps to singing, under the direction of whomsoever made in some way or other. I say "in some way or other," because those who have considered the subject are not at all in accord as to the *particular* way in which these syllables do help the student. That they help him to recognise, and therefore to utter, sounds in their relation to a given tonic is certain; that they also help him, if trained so to use them, to utter sounds of which he has for the moment no means of ascertaining this tonic, is equally certain. I do not, however, think them so useful in either of these ways as in another, more simple and more obvious—that of enabling him to concentrate his whole attention on the musical symbol before him, and, in naming it, to give to his teacher the only possible guarantee that he is doing so. For, paradoxical as it may sound, it is not at all certain that because a passage is correctly executed by a class, to inarticulate vocables, or even written words, any large proportion of those who execute it know anything of its construction, could explain what key or keys it was in, or in fact, give any account of it whatever. It is not even certain that all those who have sung it correctly have given themselves the trouble even of looking at the notes in which it is expressed. A quick ear will do wonders in this way; and where the singer who has this precious gift is surrounded by persons of quicker intelligence, more power of attention, and desire to learn than himself, he is too likely to yield indolently to the stream which he finds carrying him along without any apparent necessity on his part for swimming. It may be said, however, if C, E, D, G, for example, be written, and C, E, D, G, be sung, in time and in tune, what more can conductor or teacher require? Conductor, perhaps, nothing. His business is

generally to "get up," by hook or by crook, this or that chorus or part song in the shortest possible space of time; but the teacher has a right, or, rather, it is his duty, to require and to ascertain a good deal more. And for this the *sol-fa* syllables are a sovereign remedy. A student with a good ear, and helped by others, may *sing* correctly almost any passage, with or even without a glance at its component notes; but if he pronounces their names, if he *sol-faes* them, we may be sure that he, at least looks at them. It is in this way, I believe, the *sol-fa* syllables to be most useful, and it is with this view that I have always advocated their use, notwithstanding their obvious imperfections and their insufficiency for the requirements of modern music.

These imperfections are, of course, most obvious under the "fixed" or immoveable *Do*. That all the sounds into which the octave can be divided should be represented by seven syllables; that one syllable should lend its name to, at least, three different sounds—*Sol*, for instance, to G. G♯ and G♭, nay, even to G × and G♭♭—is theoretically an absurdity which must continually present itself to the least thoughtful student; one for which I should have sought a remedy long ago had I ever found it to present any considerable practical difficulty. For I have never found students who understood the construction of the scales they were using in the least puzzled by the F♯ in the key of G, or the B♭ in that of F, though they called the one *Fa*, and the other *Si*. On the contrary, I fear that in many cases they sang these notes, however correctly, with less consciousness that they were sharp or flat than I should have desired; and I am about to propose a mode of modifying or altering the *sol-fa* syllables, not in the belief that such modification will save the student trouble, but with the certainty that it will oblige him to think, and prove to his teacher that he is thinking.

A proposal to modify the *sol-fa* syllables, is, of course, no new thing, either in respect to the moveable or immoveable *Do*. Accidentals are not inevitably indicative of modulation. The minor mode continually calls them into requisition, so does the chromatic genus. And it is often difficult, sometimes impossible (from a single part) to say to which of these they owe their introduction. I find no uniformity in the modifications of these syllables which are used to help students in sounding accidentals. Some teachers change every syllable to be applied to a sharpened note to *Si* (I give the average continental pronunciation* to the vowels throughout this memorandum) to a flattened note to *La*. Others modify every syllable by changing

* Not that approximate instances of this are wanting in English—e.g., *do*nor *re*mnant, *mi*racle, *fa*ther, *sol*vent (*not* solar), *la*ugh*i*ng, *si*mile.

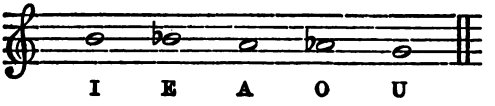
its vowel to *I* or *A*; thus *Fa*♯ becomes *Fi*, *Do*♯ *Di*; while *Si*♭ becomes *Sa*, *Mi*♭ *Ma*, and so on. Others have suggested or adopted altogether new names for these accidental sounds. In some schools of Germany pupils are, or were, taught to sing to the letters of the alphabet, the syllable *is* being added to the name of each sharpened note (accidental or essential), and the syllable *es* to each flattened note. The effect cannot be pleasing. Indeed, I believe the sibillation induced by it has driven it out of use.

These contrivances, like all others I have known proposed, are faulty in one and the same particular; the modifications they induce in the syllables have no proportion one to another, they have no "basis in nature." Let me explain—

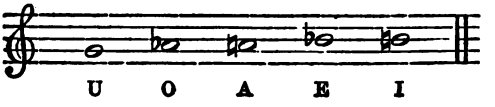
The vowel sounds of speech are five in number, and five only:

(Italian)	I	E	A	O	U.
(English)	E	A	AA	O	OO.

Many varieties of these exist even in English, *à fortiori* in foreign languages; but all other (so-called) vowels are the result of modification of one, or of the blending together of more than one of these. Moreover, the *order* in which I have placed them is the order in which they are producible by the elongation of that portion of the "vocal mechanism" most under our control, and most open to observation. *I* is produced at the very back of the mouth, *E* in the position next to it, *A* in the next, *O* in the next, and *U* at its most forward extremity; *I* is therefore the most acute (sharpest), and *U* the most grave (flattest) of the vowels. I am not prepared to state the difference between them in musical terms, but my fancy deceives me greatly if it is not easier to sing a succession of sounds, each a semitone apart, to vowels placed in this order, than to any vocables chosen haphazard. Let this succession be tried:



or the same inverted:



Be this as it may, these vowels have thus much in common with musical sounds a semitone apart; that, if not as near together as vowels or sounds can be, there are no recognised modes of expressing closer relation between either. When, in ascending, we quit C we reach C♯ or D♭; when we quit *I* we reach *E*, &c.

I propose, therefore, to modify the sol-fa syllables, not as heretofore by an arbitrary, still less an uniform and therefore inconsistent rule, but by a rule based on the *natural sequence* of the vowel sounds, and therefore not uniform but consistent. This modification would consist in changing the vowel of each *sol-fa* syllable to the next above it, when the note with which it is associated is raised a semitone, and to that next below, when that note is lowered a semitone. Thus F♮ being *Fa*, F♯ would be *Fe*; B♮ being *Si*, B♭ would be *Se*. In the following table these modifications are given, with the exception of two. In the middle row of syllables is the unaltered diatonic septenary; in the upper is the same septenary altered by sharps, and in the lower by flats.

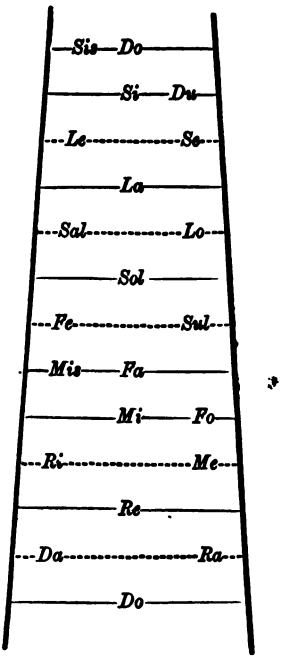
Da,	*Ri,*		*Fe,*	*Sal,*	*Le,*	
Do,	*Re,*	*Mi,*	*Fa,*	*Sol,*	*La,*	*Si,*
Du,	*Ra,*	*Me,*	*Fo,*	*Sul,*	*Lo,*	*Se.*

Two syllables here, *Mi* and *Si*, are left without names for the sharpened notes sung to them. They both include the sharpest vowel of the vowel series. I propose to apply to them so much of the German system to which I have alluded as to add to each the letter *s*. Thus *Mi*♯ would be *Mis*, and *Si*♯ *Sis*.

For general practical purposes this scheme would suffice, and indeed more than suffice. But it is still incomplete.

Every note is liable, though not often likely, to be *doubly*, as well as singly, sharpened or flattened. I propose to add to the already sharpened syllables an *s*, to the flattened an *f*. Thus *Fa* × would be *Fes*, and *Si*♭♭ *Sef*. To *Mis* and *Sis* might be appended an *h*. Thus *Mi* × would be *Mish*, and *Si* × *Sish*. It need not be said that these last syllables would very rarely indeed be called into requisition. For all practical purposes, I repeat, all the syllables needed for sol-faing vocal music of the highest order may be found in the foregoing table. They will be more clearly seen in the following diagram, a modification and extension of that I have been in the habit of using for thirty years past, and which has been transferred, generally without acknowledgment, to nearly every singing method published since.

Every musician knows that C♯ and D♭ are not theoretically identical. For all practical purposes they are regarded as such, in pitch, by the greatest composers. The system of "equal temperament," on which all pianofortes and most organs are now tuned, is universally accepted, even by the most skilful and refined performers on stringed instruments, capable as these are of infinite variety of intonation. We may confidently adopt a mode of tuning, even though it be theoretically incorrect, which satisfies the ears of a Joachim or a Piatti.



The modifications here proposed of the time-honoured *sol-fa* syllables would, of course, be introduced to beginners one at a time, as the necessity for each arose. The figure above is for teachers and advanced students only. When a student was first made acquainted with the scales of F or G, he would be simply told to call B♭ no longer *Si* but *Se*, F♯ no longer *Fa* but *Fe*, and so on. And in doing so he would show that he was conscious of the alteration, and knew what key he was singing in.

I invite teachers in the training schools and elsewhere to give a fair trial to the plan I have here laid before them. Though most largely applicable to and suggested by the shortcoming of the fixed *Do* principle, it is still applicable to the moveable *Do* principle. It entails no necessity for new books or exercises, and can be used in the practice of vocal music of every kind.

Christmas, 1872. J. H.

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DIRECTIONS TO THE TEACHER.

Two kinds of type only are used in this book.

The paragraphs in "Roman" contain the substance of what the teacher has to communicate to his class; the musical notes appended to many of them are to be *sol-faed* by him, and, in most cases, imitated by his pupils.

The paragraphs in "Italics" consist exclusively of directions to the teacher.

The "figures" 1, 2, 3, and a few others, easily recognised, should be drawn on a black board. The majority must be referred to in the books themselves. These latter it is unadvisable—certainly not necessary—to put into the hands of pupils till after the first twelve chapters have been thoroughly mastered.

TIME AND TUNE

IN

THE ELEMENTARY SCHOOL.

CHAPTER I.

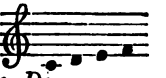
The Names of Musical Sounds.

SAY after me these syllables, *Do*, *Re*, *Mi*, *Fa*.

Place your right hands before you, open, but with the palm turned downwards, on a level with the waist.

Say after me these same syllables, raising your hands a little as you name each, *open* as you say *Re* and *Mi*, but *shut* as you say *Fa*.

Now *sing* after me these same syllables, with the same manual signs.



Say after me these same syllables backwards, *Fa*, *Mi*, *Re*, *Do*.

Place your right hands as they were when you ceased singing just now (on *Fa*), and say after me these syllables backwards, lowering your hands a little as you name each, *shut* as you say *Mi*, but *open* again as you say *Re* and *Do*.

Now *sing* after me these same syllables, with the same manual signs.

Now sing these four syllables forwards and backwards, *i.e.*, up and down, several times, with the same manual signs. Sing *Fa* (the top sound)

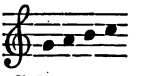
twice, and take care to close your hands, in going up, on *Fa*, and in coming down, on *Mi*.

Say after me *these* syllables, *Sol*, *La*, *Si*, *Do*.

Place your hands before you as you did just now.

Say after me these syllables, raising your hands as before, open as you say *La* and *Si*, but shut as you say *Do*.

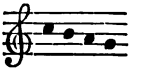
Now *sing* after me these same syllables, with the same manual signs.



Say after me these same syllables, backwards, *Do*, *Si*, *La*, *Sol*.

Place your right hands before you as they were when you ceased singing just now (on *Do*), and say after me these syllables, *backwards*, lowering your hands a little as you name each, shut as you say *Si*, but open again as you say *La* and *Sol*.

Now *sing* after me these same syllables, with the same manual signs.



Now sing these four syllables, forward and backwards, *i.e.*, up and down, several times, with the same manual signs. Sing *Do* (the top sound) twice, and take care to close your hands in going up, on *Do*, and in coming down, on *Si*.

The meaning and use of these "manual signs" will be explained to you in another lesson.

CHAPTER II.

Beats—Minims and Crotchets.

Place your left hands before you, open, and with the palm turned upwards, on a level with the waist.

Raise your right hands above your left.

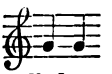
Strike your left hands with your right, and say *Down*. Keep your right hands down.

Throw your right hands smartly a little up, and say *Up*. Keep your right hands up.

These movements are called *beats*.

To enable us to *keep time*, which is what they are used for, beats must be made regularly, *i.e.*, at the same pace.

Make two beats several times successively and regularly, saying *Down* to the first beat, and *Up* to the second.

During two beats we may sing (keep on singing or sustain) one sound or sing two sounds, one to each beat 

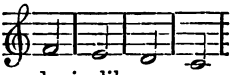
A sound which lasts during two beats is called a *minim*. A sound which lasts during only one beat is called a *crotchet*.

Thus we see that every musical sound has two names: one on account of its *pitch*, *i.e.*, its height or depth in comparison with other sounds sung before, after, or along with it, and which we will call its *pitch name*; the other on account of its *duration*, *i.e.*, its length in comparison with other sounds, and which we will call its *duration name*.

Sing *Sol*, as I did just now, as a *minim*, several times in succession, making two beats to each.

Now sing *Sol*, as I did just now, as a *crotchet*, several times in succession, making a beat to each.

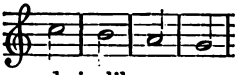
Sing *Do*, *Re*, *Mi*, and *Fa*, each as a minim, *i.e.*, making two beats to each.

Sing these sounds backwards, or downwards, in like manner. 

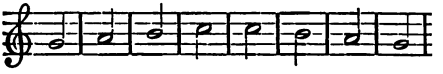
Now sing these same sounds, upwards and downwards, in like manner. Sing the upper one (*Fa*) twice.

Sing *Sol*, *La*, *Si*, and *Do*, each as a minim, *i.e.*, making two beats to each.

Sing these syllables backwards in like manner.



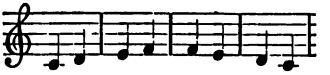
Now sing these same sounds upward and downwards in like manner. Sing the upper one (*Do*) twice.



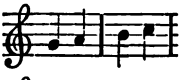
Sing *Do*, *Re*, *Mi*, and *Fa*, each as a crotchet, *i.e.*, making one beat to each.

Sing these syllables backwards or downwards in like manner.

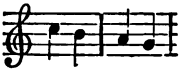
Now sing these same sounds upwards and downwards in like manner. Sing the upper one (*Fa*) twice.



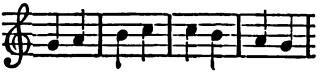
Sing *Sol*, *La*, *Si*, and *Do*, each as a crotchet, *i.e.*, making one beat to each.



Sing these syllables backwards in like manner.



Now sing these same sounds upwards and downwards in like manner. Sing the upper one (*Do*) twice.



CHAPTER III.

The Manual Stave.

RAISE your right hands, with the palm towards you, and the fingers a little separated.

Place your own hand so that the palm can be seen by your pupils, thus:

With the 1st finger of your left hand touch the 4th or little finger of your right (as I do) between the joints; then the 3rd finger, then the 2nd, then the 1st, and then the thumb.

Now touch the *space between* your 4th and 3rd finger, then that between the 3rd and 2nd, then that between the 2nd and 1st, and then that between the 1st and the thumb.

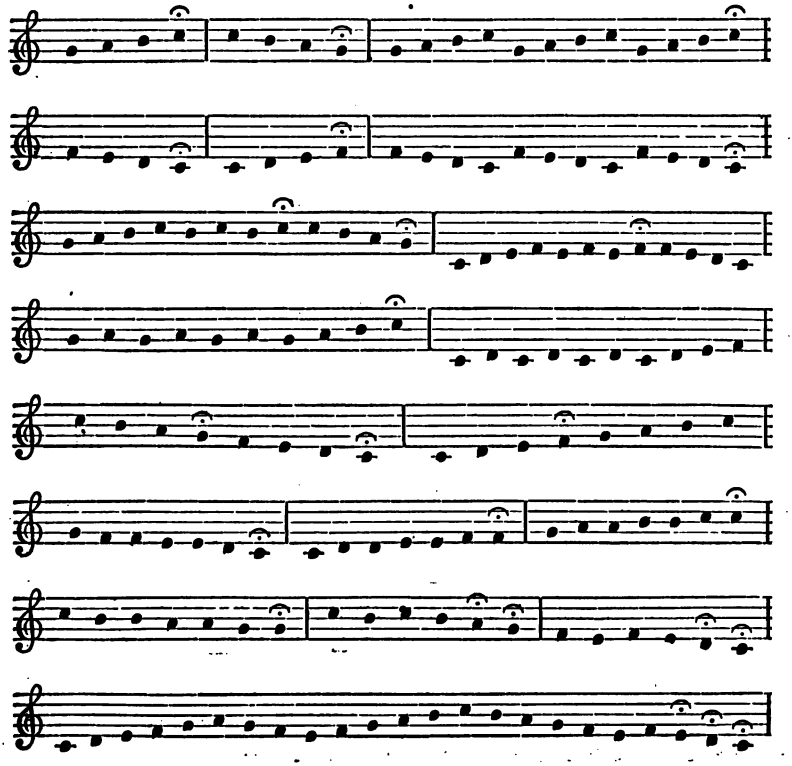
Again: touch the 3rd finger of the right hand (always with the 1st of the left), and say *Sol;* then the space between the 3rd and 2nd, and say *La;* then the 2nd finger, and say *Si;* then the space between the 2nd and 1st, and say *Do.*

Now touch on your fingers and *sing* with me, first *Sol*, then *La*, then *Si*, then *Do*, several times. Now touch and sing the same sounds backwards (*i.e.*, downwards), first *Do*, then *Si*, then *La*, then *Sol.*

Again: touch the space between the 3rd and 4th fingers, and say *Fa;* then touch the 4th finger, and say *Mi;* then the position just below the 4th finger, and say *Re;* and then, moving the finger of the *left* hand (the *index* or pointing finger) a little downwards, say *Do.*

Now touch on your fingers and *sing* with me, first *Fa*, then *Mi*, then *Re*, then *Do*, several times. Now touch and sing the same sounds upwards, first *Do*, then *Re*, then *Mi*, then *Fa*.

Henceforth begin or introduce in the course of every lesson some of the following or any similar exercises; touching the notes on your own hand, and making your pupils do likewise on theirs, singing the sounds for which they stand. Do not, yourself, sing more than is absolutely necessary. Leave your pupils to themselves as soon and as often as possible.



CHAPTER IV.

Harmony and Melody.

TOUCH on your hands and sing after me these sounds and now the same sounds in reverse order, *i.e.*, downwards.

These sounds can be sung *together*, or *all at once*, as well as separately, or one at a time.

Form your class into three divisions. Make the 1*st division sing* Do, *the* 2*nd* Mi, *and the* 3*rd* Sol; *the lowest sound being begun first, and the highest last, and all three sustained till you give a signal for silence, thus:*

This combination is called the *triad* of *Do;* triad because it consists of three different sounds, and triad of *Do*, because one of those sounds is the 3rd, and the other the 5th sound from *Do*, reckoning upwards.

Count on your fingers the sounds from *Do* to *Mi;* you will find that there are three of them, including the first and the last, and that *Mi* is the 3rd sound from *Do*. Count the sounds from *Do* to *Sol* in the same manner; you will find there are five of them, and that *Sol* is the 5th sound from *Do*.

The 3rd and 5th to *any* sound, combined with it, form its triad. The triad of *Fa* will consist of *Fa*, *La*, and *Do*. Touch on your fingers and sing after me, *Fa*, *La*, *Do;* first up, then down.

Now sound them together as we did the triad of *Do*. (*To be done.*)

Different sounds sung one after another make *melody*. Different sounds sung together make *harmony*. A triad, as we have seen, will make both.

When to the triad of *Do*, or any other, we add the 8th from that sound, we get a combination called a "common chord."

Count on your fingers the sounds from *Do* to the *Do* above it; you will find that there are eight of them, including the first and the last, and that *Do* is the 8th sound from *Do*.

Sing after me the "common chord" of *Do* upwards, and then downwards.

Form the class into four divisions, and proceed as with the triad.

CHAPTER V.

Quavers.

Two beats make, or are equal to, a *foot*.

Beat several feet in succession, and sing *Sol* during each.

Beat several feet in succession, and sing *Sol* twice during each.

Beat several feet in succession and sing *Sol* four times to each.

Thus we see that while one sound lasts during two beats, and another during one, another may last only during *half a beat*.

A sound which lasts during two beats is called a minim, and a sound which lasts during one beat is called a crotchet. A sound which occupies only half a beat is called a *quaver*.

Sing *Do, Re, Mi, Fa*, making each a quaver, *i.e.*, singing *Do, Re*, to the first beat, and *Mi, Fa*, to the second, several times successively.

Sing these sounds downwards in like manner.

Now sing these same sounds upwards and downwards in like manner. Sing the upper (*Fa*) twice.

Sing *Sol, La, Si, Do*, each as a quaver.

Sing these sounds downwards in like manner.

Now sing these same sounds upwards and downwards in like manner. Sing the upper (*Do*) twice.

Minims, crotchets, and quavers can be sung *simultaneously*, by different voices or sets of voices.

Form the class into three divisions.

(*To the 1st Division.*) Beat several feet in succession, and sing *Do* (minim) during each.

(*To the 2nd Division.*) Beat several feet in succession, and sing *Mi* (crotchet) twice during each.

(*To the 3rd Division.*) Beat several feet in succession, and sing *Sol* four times during each.

To be done, first separately, then simultaneously, thus:

We see that while one person or division sings a minim, another can sing *two* crotchets, and another *four* quavers.

It follows, therefore, that one minim is equal to (takes as long to sing as) *two* crotchets or *four* quavers; also that one crotchet is equal to *two* quavers.

This exercise may be varied by substituting the triad of Fa *for that of* Do, *and by assigning different parts to each division.*

CHAPTER VI.

Prolongation of Sounds.

A SOUND may be prolonged one half—made half as long again. For instance, a minim may be made to occupy three beats, and a crotchet a beat and a half.

Beat two feet. During the first foot and half of the second, sing *Sol;* and then sing another *Sol* to the second beat of the second foot.

Repeat this exercise several times. Then sing two *Dos*, two *Res*, two *Mis*, and two *Fas*, in the same manner, up and down.

Sing also, in the same manner, two *Sols*, two *Las*, two *Sis*, and two *Dos*.

Repeat this exercise several times.

Beat a foot. During the first beat and half of the second, sing *Sol;* and then sing another *Sol* on the second half of the second beat.

Repeat this exercise several times. Then sing two *Dos*, two *Res*, two *Mis*, and two *Fas*, in the same manner, up and down.

Sing also, in the same manner, two *Sols*, two *Las*, two *Sis*, and two *Dos*.

CHAPTER VII.

The Diatonic Scale.

(*Prepare Diagram* 1.)

We have as yet sung eight different sounds; and we have learnt their names, and their places on the hand. These eight sounds form a *scale.* Listen, as I sing the scale of *Do*, from its lowest to its highest, and from its highest to its lowest sound.

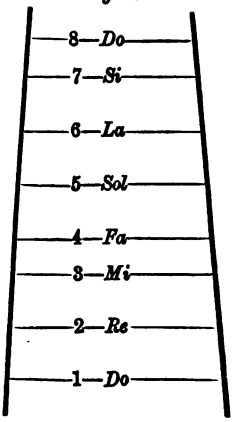
These sounds fall easily into two groups of four each, which are exactly alike in their *tune.* Some of you, perhaps, have found this out already. Their likeness is best shown when they are sung, at the same pace, to the same vowel. Listen:

These groups of four sounds each we will call, for the present, *half-scales.*

The reason why these half-scales are alike in their tune, is that the *intervals* of the one are identical with those of the other.

Look at the figure before you. It is a ladder, the eight *rounds* of which will stand for the eight sounds of the scale I just sang. These rounds are not all at the same distances apart. The openings or *intervals* between them are not all of the same size; on the contrary, the intervals 3–4 and 7–8 are smaller than—indeed, only half the size of—any of the others. You will remember that in passing from *Mi* to *Fa*, *i.e.*, from 3 to 4, or from *Si* to *Do*, *i.e.*, from 7 to 8 (upwards or downwards), you have been accustomed to close your hands on the second of either of these two sounds; this was that you might know from the first that there was something special or particular about them. You now see what this is. *Mi* and *Fa*, the 3rd and 4th sounds, and *Si* and *Do*, the 7th and 8th sounds, are severally nearer together, or less unlike, than any other two. This is why *Do*, *Re*, *Mi*, *Fa*, though not the same sounds as *Sol*, *La*, *Si*, *Do*, have the same tune. They are severally separated by the same intervals; *Do–Re* by the same interval as *Sol–La*, *Re–Mi* by the same interval as *La–Si*, and *Mi–Fa* by the same interval as *Si–Do*. These larger intervals, of which there are two in each half-scale, are called *tones*, and the smaller, of which there is but one in each half-scale, are called *semi*tones. *Semi* means *half*. Between the top of the first half-scale and the bottom of the next, there is another tone which, added to the two in each, makes altogether *five* in the scale—*five tones and two semitones.*

Fig. 1.



Let us now, as I point to each line of Fig. 1, repeat, and afterwards

sing, the sounds of the entire scale, upwards and downwards; marking the places of the semitones by manual signs.

When this has been done satisfactorily, touch on the ladder the following or any similar passages, the pupils indicating the place of each sound on their fingers *as they sing it.*

CHAPTER VIII.

Scale and Chord Progression.

(*Prepare Diagram* 1.)

MELODY or tune is made up largely of progressions from one sound to another *next* above or below it in the scale, and also of repetitions of the same sound.

Touch on your hands and sing after me the following :—

Now sing it again, as I point to each sound on Fig. 1.

Progressions like these, however, are generally mixed with and varied by *skips* to and from sounds *not* next above or below one another in the scale, *i.e.*, by *larger intervals* than tones and semitones. The skips in most common use are those between the sounds which form the common chord to the sound on which a scale begins—the *tonic*. The tonic of the only scale we have as yet sung is *Do*, and the notes of the common chord of *Do*, are its 3rd *Mi*, its 5th *Sol*, and its 8th *Do*.

Touch on your hands and sing after me.

These are all the progressions that can be made out of the chord of *Do*. But by mixing these with scale progressions we can make much more varied and pleasing melody than out of either kind alone.

Here is a well known hymn-tune which is made up entirely of scale and chord progressions.

Touch on your hands and sing with me.

Sing it again, as I point to each sound on Fig. 1.

Here, again, is another tune of a different kind, which contains only one or two skips not of the scale or common chord. The beginning is the commonest of all beginnings—that made by a skip from the 5th of the scale to the 8th.

Touch on your hands and sing after me.

Sing it again, as I point to each sound on Fig. 1.

CHAPTER IX.

Scale Land-Marks.

(*Prepare Diagram* 1.)

We may be called upon to sing any sound whatever, of the same scale, immediately after any other sound. No progression, between sounds of the same scale, is forbidden, or impossible.

Some progressions, however, are much more common than others, partly because they are easier to the voice, but chiefly because they are more agreeable to the ear. Some sounds, indeed, seem of themselves *suggestive* of particular progressions, *i.e.*, they lead us to expect that certain other sounds will follow them.

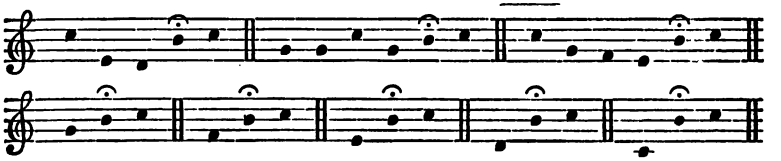
This you will soon find out for yourselves, if, indeed, you have not done so already. The sound most suggestive of another in the scale of *Do* is *Si* (the 7th), which is so easily and so often followed by *Do* (the 8th), that we sometimes find it difficult to stop upon it, or to turn back from it when once reached.

Touch on your hands and sing, as I point to Fig. 1.

Note the pauses *in the following.*

This property in the 7th of a scale enables us to know it when we hear it, and to sing it when we are called upon to do so, more easily than any other sound of the scale, excepting the tonic. Thus, with a little practice, we shall find ourselves able to leap to it from the most distant parts of the scale.

Touch and sing, as I point to Fig. **1.**



In like manner, *Fa* (the 4th of *Do*) is suggestive of, and often followed by *Mi* (the 3rd), and partly from the same cause. For as *Si* leads *upwards* to a sound a semitone above it, so *Fa* leads *downwards* to a sound a semitone below it.

Touch and sing, as I point to Fig. **1.**

This property in the 4th of a scale enables us to recognise and to sing it almost as easily as the 7th, and to leap to it also from the most distant parts of the scale.

Touch and sing, as I point to Fig. 1.

Other sounds of the scale have like tendencies to these. The 2nd inclines towards the 1st, the 6th towards the 5th. As with the 7th and 8th, it is partly by these tendencies or inclinations that, when thoroughly possessed with the sound of the *tonic*, we are enabled to recognise and to sing these sounds, no matter what sounds come immediately before them.

Touch and sing, as I point to Fig. 1.

None of these tendencies, however, are so strong as those of the 4th towards the 3rd, and (still more marked) of the 7th towards the 8th. On account of this tendency, the 7th has got the name of the *leading* note.

CHAPTER X.

Triple Time.

Stand to the left of your pupils with your right shoulder towards them, so that your hand may move in the same directions as theirs, and you can still watch their beats.

Place your left hands before you, open, and with the palm turned upwards, on a level with the waist.

Raise your right hands above your left.

Strike your left hands with your right, and say "Down." Keep your right hands down.

Throw your right hands smartly *to the right*, and say *Right*. Keep your right hands to the right.

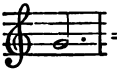
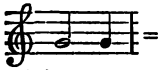
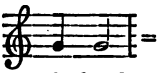
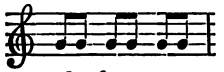
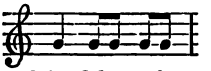
Throw your right hands smartly up, and say *Up*. Keep your right hands up.

Make three beats several times, successively and regularly, saying *Down* to the first beat, *Right* to the second, and *Up* to the third.

Each three of these beats forms a foot.

We see, therefore, that there are two kinds of musical foot; the foot made up of two beats, and the foot made up of three.

Music made up of feet of two beats (such as we have as yet practised) is said to be in *duple* time. Music made up of feet of *three* beats is said to be in *triple* time.

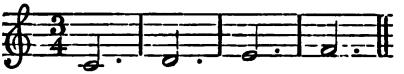
During a foot of three beats we may sing (keep on singing, or sustain) one sound  = a prolonged or *dotted* minim; or two sounds  = a minim and a crotchet, or  = a crotchet and a minim; or we may divide all or any one of the beats into quavers  or  or or in several other ways to be explained hereafter.

Beat several feet of triple time, and *sing* to each foot, *Sol* = a prolonged or dotted minim.

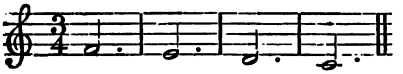
Beat several feet of triple time, and sing to the first two beats of each, *Sol* = a minim, and to the third beat, *Sol*, again = a crotchet.

Beat several feet of triple time, and sing to each of the three beats, *Sol* = a crotchet.

Beat four feet of triple time, and sing during the first foot, *Do*, during the second, *Re*, during the third, *Mi*, and during the fourth, *Fa*.



Beat and sing, in like manner, these sounds downwards.



These same exercises may be continued on Sol, La, Si, and Do, upwards and downwards.

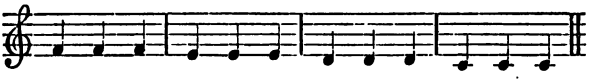
Beat four feet of triple time, and sing during the first foot, *Do*, twice, making two beats to the one *Do*, and one to the other. In like manner sing *Re*, *Mi*, and *Fa*, each twice.

Beat and sing, in like manner, these sounds downwards.

These same exercises may be continued on Sol, La, Si, and Do, upwards and downwards.

Beat four feet of triple time, and sing to each beat of the first foot, *Do*, of the second, *Re*, of the third, *Mi*, and of the fourth, *Fa*.

Beat and sing these sounds, in like manner, downwards.



These same exercises may be continued on Sol, La, Si, and Do, upwards and downwards.

CHAPTER XI.

Extended Compass.

(*Prepare Figs.* 1 *and* 2.)

THE eight sounds to which our practice has been as yet confined are not all the sounds practicable even to a single voice. We can most of us sing others above them or below them, or both. Whether above or below, however, such sounds will form parts of scales exactly like those shown in Fig. 1, and they will be called, not by any new names, but by the same names repeated in different *octaves.*

Octave means *eighth.*

The highest sound of a scale is the eighth or octave to the lowest, and *vice versâ.* As you know, the eighth sound of the scale bears the same name as the first.

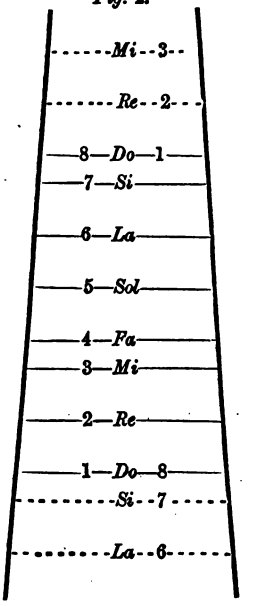
All sounds bear the same names as their octaves.

The highest sound of Fig. 1 is not only the 8th or highest of the particular series of sounds which we have sung so often; but the 1st or lowest of another exactly like it in the order of its tones and semitones. In like manner the lowest sound of Fig. 1 is not only the lowest or 1st of the particular series of sounds we have sung so often, but the 8th or highest of another exactly like it in the order of its tones and semitones.

Compare Figs. 1 *and* 2, *and show that* 2 *is only an extension of* 1.

The 2nd of this new scale, being the octave of the 2nd of the old scale, will be called also *Re;* the 3rd *Mi*, the 4th *Fa*, and so on; just as the 8th day from this will be called by the same name, Monday, Tuesday, or other, as the case may be. So the 7th of the new scale, being the octave of the 7th of the old scale, will be called *Si*, the 6th *La*, and so on.

Fig. 2.



The places of these notes on the hand are as follows:—

Touch on your right hands (always with the first finger of your left) *Do*, the 8th of the scale we have sung so often. *Re* occupies the place next above this, on the 1st finger; *Mi* stands in the space between the 1st finger and the thumb; *Fa* stands *on* the thumb; *Sol above* it; and *La* is indicated by slightly raising the index finger. The *Si* below the lower *Do* is indicated by slightly lowering the index finger *bent*.

Look at my hand and *name* the sounds which occupy the positions I touch.

Now touch on your own hands and *sing* what I touch.

CHAPTER XII.

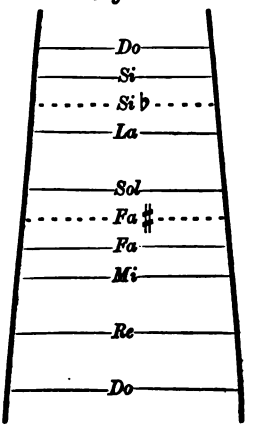
Altered Sounds.

(*Prepare Fig.* 3.)

THE eight sounds of a scale are separated by seven intervals, five of them tones, and two of them semitones.

Any one of these five tones may be divided into two semitones, by introducing between the two sounds which form it a third sound, which will be at the same distance from either, as *Mi* is from *Fa*, or *Si* from *Do*, *i.e.*, a semitone.

Fig. 3.



These intermediate sounds are more often used *instead of* than in addition to (or along with) those immediately above or below them. For the most part they are regarded as raisings or lowerings, *sharpenings* or *flattenings* of these sounds, and are named accordingly.

Thus the sound which we can place between *La* and *Si* will be called *La sharp* or *Si flat*, according as we regard it as *La* raised or sharpened, or as *Si* lowered or flattened. So with the sound between *Fa* and *Sol*, which may be either *Fa* sharp or *Sol* flat.

For the present, we shall call the sound represented by the dotted line (Fig. 3) between *Si* and *Do*, *Si* flat; and the dotted line between *Fa* and *Sol*, *Fa* sharp.

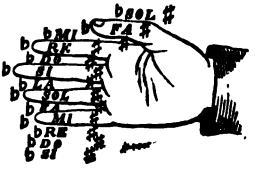
Si flat you will, *in singing*, call *Se* (pronounced *Say*), and *Fa* sharp you will call *Fe* (pronounced *Fay*).

Sing after me, as I touch Fig. 3.

On the hand we represent flattened sounds by touching the tips of our fingers, and the sharps by touching the roots.

Thus the place of *Si natural*, as you know, is between the joints of the 2nd finger; the place of *Si flat* will be at the tip of the same finger. Again, the place of *Fa natural* is in the middle of the space between the 4th and 3rd fingers, the place of *Fa sharp* will be between the roots of those two fingers.

Give a few other examples (*see drawing appended*). *Then touch* on your hand *the passages above, the pupils imitating.*



CHAPTER XIII.

Notation—of Time.

(*Prepare Figs. 4 to 9.*)

THE height or depth of a musical sound (actual or relative) is often spoken of as its *pitch*; the time we are to give to it (always relative) as its *duration*.

The *pitch* of a musical sound may be indicated (as you know) on the

hand, or on a figure like that before you; and its *duration* may be made known by *describing* it as a minim, a crotchet, or a quaver. But perfectly to express to the eye *both* the pitch and the duration of musical sounds, we must use *musical notation.*

Notes are of different shapes. By the shape of a note we know its duration; whether (for instance) it is a minim, a crotchet, or a quaver, *i.e.*, whether it is to last during two beats, one beat, or half a beat.

Here we have all three. Remark the differences between them.

Fig. 4.

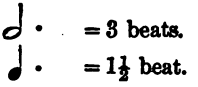
The minim is a white or open note, with a stem; the crotchet, a black or closed note, also with a stem; and the quaver is like the crotchet, but with a hook at the end of its stem.

The stems of notes may be turned down as well as up.

Quavers are sometimes *grouped;* the hooks of two or more being made into a continuous line.

Fig. 5.

The prolongation of a sound by one-half is indicated by a *dot* placed after the note which stands for it. Thus, if we want to prolong a minim (= two beats) to three beats, we place a dot after it; and if we want to prolong a crotchet (= one beat) to a beat and a half, we do the same.

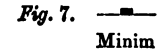
Fig. 6. 

The length of a dot entirely depends on that of the note to which it is added.

Besides notes, which show the lengths of *sounds*, we use in music other characters or signs which show the lengths of *silences.*

These are called *rests.*

We *cease* singing, on meeting with a rest, for as long a time as we should, in singing, give to the note after which it is called. Here are the rests corresponding to the three forms of note we have as yet seen. Note the differences between them—especially the two last.

Fig. 7. 

Minim Rest. Crotchet Rest. Quaver Rest.

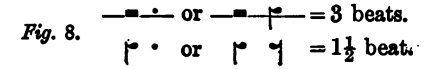
The minim rest is a short thick stroke, resting always upon a line.

The crotchet rest is formed like a hatchet, with the blade turned *to the right.*

The quaver rest is formed like the crotchet rest, but with its blade turned *to the left.*

The stems of rests are always turned downwards.

Rests, as well as notes, can be prolonged one-half, and the sign of prolongation is sometimes a dot. More commonly, however, a rest is prolonged by the addition of another rest of half its value.

Fig. 8. 

= 3 beats.

= 1½ beat.

Name the following notes or rests, as I point to each.

Fig. 9.

CHAPTER XIV.

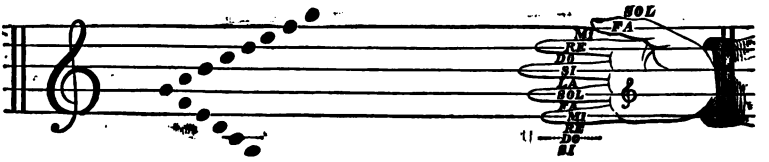
Notation—of Tune.

(*Prepare Figs.* 10 *and* 11.)

THE shapes of notes, which perfectly express their (relative) *duration*, tell us nothing about their *pitch*; whether one note is higher or lower than the other, which is *Sol*, or which is *La*. We must learn this from their

places on or between parallel *lines*, as we have learnt it before from their places on or between our *fingers*.

Fig. 10.



Look at this figure—a picture of a right hand, with five lines drawn through it. The lowest or 1st line answers to the little finger, the next above to the second, and so on; and the highest or 5th line to the thumb. So the *space* between the 1st line and the 2nd line answers to the space between the little finger and the next above it, and so on.

These five lines form a *stave*. A stave *generally* consists of five lines; but it need not consist of so many, and sometimes it consists of more; as we shall see.

At the head of a stave is placed a *clef*. (*Fig.* 10.)

There are in use three clefs, each of which stands for a particular sound. The notes on the same line with a clef stand for the same sounds as the clef itself. The clef before you stands for the sound *Sol*, the 5th sound of the scale of *Do*, which we have sung so often.

Sing *Sol*.

This *Sol* clef is said to stand on the *second* line of the stave. No doubt it *touches all* the lines, but it touches the second line *oftenest*.

From the position of the *Sol* clef we know not only the position of the note *Sol*, but the positions of all the notes which stand above and below *Sol*. *La* occupies the space between the 2nd and 3rd lines of the stave before you; *Si* the 3rd line, and *Do* the 3rd space. Again, reckoning downwards, *Fa* occupies the space between the 2nd and 1st lines, *Mi* the 1st line, *Re* the position immediately below the 1st line, and *Do* the short

line which can be added to the stave. I told you just now that the stave consisted sometimes of more, as well as of fewer, than five lines.

Short lines, like that on which the lower *Do* stands, and under which the lower *Si* stands, are called *leger* lines.

The *Sol* clef is sometimes called the *treble* clef, and the stave before you the *treble* stave; because music for *treble* voices—the higher voices of women and children—is more conveniently written on it than on any other stave.

Try now and name the notes in Fig. 11.

Fig. 11.

CHAPTER XV.

Reading in Time.

A MUSICAL foot may consist of two beats or of three. Music consisting of feet of two beats is said to be in *duple* time, of feet of three beats in *triple* time.

Beats are distinguished as *strong* (marked or emphasized), or *weak* (unmarked or unemphasized). In a foot of two beats the *down* beat is strong, the *up* beat weak. In a foot of three beats the down beat again is strong, but *both* the others are weak.

The places of strong beats are indicated in musical notation by lines

drawn at right angles with those of the stave. These lines are called *bars*. The notes between two bars form a *measure*. The term *bar* is sometimes improperly applied to the measure itself.

A good preparation for singing in time is found in "*reading* in time"—*without musical intonation.*

Every note has two names, one derived from its shape and *duration*, the other from its place on the stave and *pitch*. In reading in time, as in singing, we call notes by their *pitch* names; expressing their *duration* names by giving its proper number of beats or portions of beats to each of them. For example—

To a minim placed on the 2nd line of the treble stave we make *two* beats, and *say*, as we make the first beat, "*Sol*," making the second beat without saying anything.

Fig. 12.

To a crotchet placed on the 2nd line of the treble stave we make *one* beat, and say, as we make it, "*Sol.*"

Fig. 13.

To a quaver placed on the 2nd line of the treble stave we make half a beat, *i.e.*, we say *Sol* twice on each beat.

Fig. 14.

So that, whatever the pitch and duration of a note, we name it, when it begins, by its *pitch* name, making the beats or half beats due to it, *without saying anything more.* Notes, as we shall see, are often prolonged during many beats. We indicate *rests* by *counting aloud*, as well as making the beats due to them.

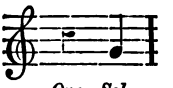
During a minim rest we make two beats, and count aloud, *One, Two.*

Fig. 15.

During a crotchet rest we make one beat, and count aloud—

Fig. 16.

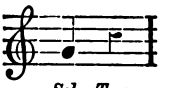
One, if it fall on the down beat;



One, Sol.

Fig. 17.

Two, if it fall on the up beat.

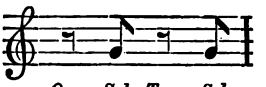


Sol, Two.

Neither a rest, nor any part of a rest, is to be named in reading, unless it come at the *beginning* of a beat. Thus, to a quaver rest (= half a beat), we say—

Fig. 18.

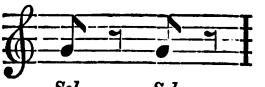
One, or *Two*, if it fall at the beginning of a beat;



One, Sol, Two, Sol.

Fig. 19.

But we do not name it at all if it fall at the end of a beat.



Sol, Sol.

The following exercise in "reading in time" contains illustrations of all these rules.

Fig. 20.

CHAPTER XVI.

Singing from Notes.

Look at Exercises 1 to 6. You will recognise them when you hear them; perhaps even by looking at them. All the notes in No. 1 are minims, in No. 2, crotchets, in No. 3, quavers. These notes are divided into *measures* of a foot each by *bars*, which show where the strong beats fall.

But notes, even when alike in their shape and duration, may differ in their place and pitch. All the notes in No. 1 are minims, but the note in the first measure, besides being a *minim* is also *Sol;* that in the second measure is *La*, in the third *Si*, and in the fourth *Do*. So in No. 2 all the notes are crotchets; but those in the first measure are *Sols*, in the second *Las*, and so on. While in No. 3 all the notes are quavers; those in the first all *Sols*, and so on.

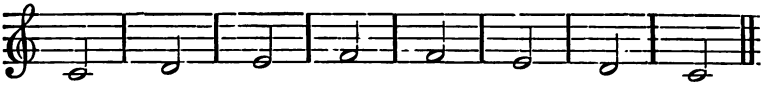
Let us first *read* ("without musical intonation") and then sing each of the following exercises, always beating time.

No. 1.

No. 2.

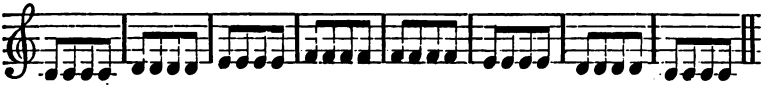
No. 3.

No. 4.



No. 5.

No. 6.



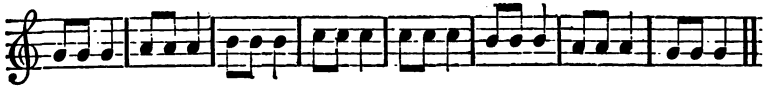
But measures are not of necessity made up (like those we have sung) of notes of the same pitch and duration.

Look at Nos. 7 to 10. There we find measures of a crotchet followed by two quavers, and of two quavers followed by a crotchet. Other arrangements, even of measures made up of crotchets and quavers only, are possible, as we shall see hereafter.

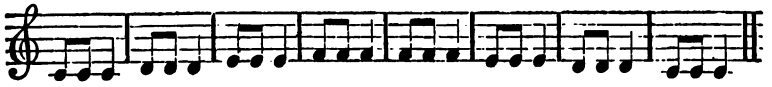
Read and then sing Nos. 7 to 10.

No. 7.

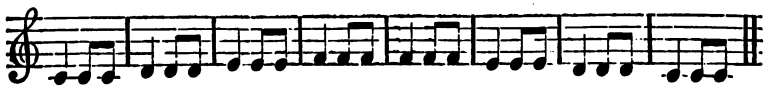
No. 8.



No. 9.



No. 10.



CHAPTER XVII.

Intervals.

(*Prepare Figs.* 1 *and* 21.)

THE relation of (difference between) two sounds of different pitch is called an *interval.* In passing up or down the natural scale without missing a step, we meet with no interval greater than a tone; but in *skipping* from one sound to another *not* next above or below it we traverse or measure a larger interval, *i.e.*, we sing two sounds more distant from one another than a tone.

Intervals are named—

(1.) According to the relative positions in the scale, or on the stave, of the notes which compose them.

(2.) According to the number of tones and semitones into which they can be divided.

For instance. (1.) *Do* and *Re* are said to form a *second;* because, taking those notes as they appear in the natural scale, *Re* is the 2nd sound above *Do*, and *Do* the 2nd below *Re.* As *Re* is the 2nd above *Do*, so is *Mi* the 3rd, *Fa* the 4th, *Sol* the 5th, *La* the 6th, *Si* the 7th, and *Do*, as we have seen, the 8th, or octave, to *Do.*

Fig. 21.

Again. (2.) *Mi* is the second to *Re*, and *Fa* the second to *Mi.* But it has been shown (and we see on the ladder) that *Mi* is a *tone* above *Re*,

and *Fa* only a *semi*tone above *Mi*. Therefore the second between *Re* and *Mi* must be a second of different *quality* from that between *Mi* and *Fa*. The two qualities of second are distinguished as *major* (greater) and *minor* (lesser).

In like manner, of every interval in the natural scale, except the octave, there are two qualities, differing from one another to the extent of a *semitone*.

CHAPTER XVIII.

Seconds—Major and Minor.

(*Prepare Figs.* 22 *and* 23.)

THE natural scale includes five major and two minor seconds; *major* second being but another name for tone, and *minor* second but another name for semitone—that kind of semitone which is found in the natural scale; for there is another kind of semitone, to be explained hereafter.

SECONDS.

Fig. 22.

Touch on your hand and sing the following, the pupils imitating. Call attention to the minor seconds as they present themselves.

Let us now first read and then sing the following exercises :—

The *fractions* at the beginning of each are *time-signatures;* to be explained hereafter. The upper figure (numerator) indicates the number of beats in each measure.

The relation of a sound to another of the same name and pitch (see No. 11) is called a *unison.* A unison is not an interval, for an interval is the relation between two *different* sounds. The unison is, however, sometimes, for convenience, classed among intervals. Experience proves too that, like different sounds, repeated sounds, or unisons, require practice.

One of the most important things in singing is the choice of proper places for *taking breath.*

Every succession of musical sounds is divisible into passages or groups, more or less complete in themselves. These passages or groups are called *phrases.* A phrase may consist of two, three, four, or even more feet. As a rule, the breath should not be taken in the middle of a phrase. When one phrase immediately follows another, the time needed for breathing must be taken from the note which *ends* the first phrase, never from that which begins the second. Thus, the minim in the fourth measure of No. 11 must be sung as though it were a dotted crotchet; the breath being taken during the quaver rest needed to complete the measure.

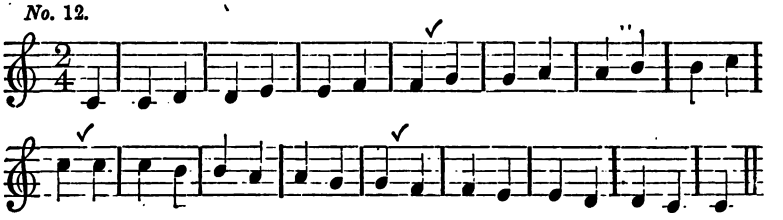
Fig. 23.

✓ is a sign for taking breath.

No. 11.

A phrase often (perhaps most often) begins with a weak beat and ends with a strong. (See No. 12.) Sing the note ending each phrase of No. 12 as though it were a quaver followed by a quaver rest.

No. 12.



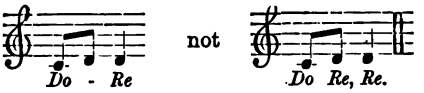
The character connecting the minim and crotchet in the third and fourth and other measures of No. 13, is a *slur*. It implies that all the notes under or over which it is placed are to be *vocalized, i.e.*, sung smoothly and to the same syllable as the first;

not

When the slur is applied to a unison it *prolongs* the first note by the length of the second (see the last two measures of No. 13); the two notes of which must be sung as one

Placed over a unison the character is called a *tye* or *bind*. *Grouped* quavers (see the

first and other measures of No. 13) are generally regarded as slurred, and sung to the syllable due to the *first* of them, thus:



In reading, and even *at first* in singing, it is better to name each note, whether slurred or not.

The *dots* placed before the last bar but two of No. 13 show that the exercise is to be repeated, without any break in the time. The last two measures are only to be sung once—*after* the repetition.

The breath should be taken during the rest which ends each phrase.

No. 13.

CHAPTER XIX.

Thirds—Major and Minor.

(*Prepare Fig.* 24.)

As there are major and minor seconds, so there are major and minor thirds. The *major* third is composed of (or divisible into) two tones, the *minor* third of a tone and a semitone.

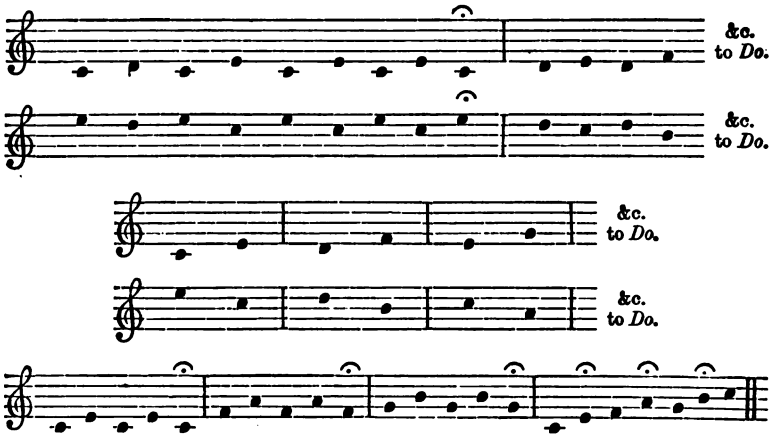
Between *Do* and *Mi* there are two tones, between *Re* and *Fa* only one tone and a semitone. Consequently, *Do–Mi* form a major third, *Re–Fa* only a minor third. The natural scale presents examples of three major and four minor thirds.

THIRDS.

Fig. 24.

Note that the major thirds are the fewer, and that they are severally formed on the 1st, 4th, and 5th of the scale.

Touch on your hand and sing the following, the pupils imitating. Call attention to the major thirds as they present themselves.



Sing the note ending each phrase of Nos. 14 and 15, as though it were a quaver followed by a quaver rest.

No. 14.

No. 15.

Call attention to the slurs and signs of repetition, before beginning No. 16.

No. 16.

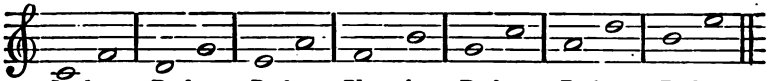
CHAPTER XX.

Fourths—Perfect and Pluperfect.

(*Prepare Figs.* 25 *and* 26.)

THE fourths are not (like the seconds and thirds) called major and minor; nor are their different qualities so nearly equal in number. They are all perfect (in the same scale) but one, called *plu*perfect. The contents of a perfect fourth are two tones and a semitone, of a pluperfect fourth *three* tones; whence it is also called the *tritone*. The natural scale includes six perfect fourths, and *one* (only) pluperfect.

Fig. 25. FOURTHS.



Note that the one pluperfect fourth is formed on 4th of the scale.

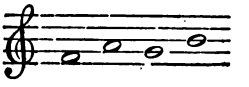
The major and minor thirds, of which the numbers in the natural scale are nearly equal (there are three major and four minor), are found freely intermixed in musical passages. We meet with the one as often as the other, and sing them with equal ease; often, perhaps, without recognising their quality. A slight difficulty is sometimes found in singing the two major thirds, *Fa–La*, and *Sol–Si* in immediate succession; the cause of which will soon appear. Otherwise a succession of thirds is easier of execution than that of any interval, except of seconds.

Not so with the fourths, of which all are alike perfect, with one exception. This exception, the pluperfect fourth, or tritone, is in ordinary melody seldom employed. It is somewhat difficult to sing, though, perhaps on that account, more easily recognised when sung. Listen—

Beginners, in first trying this passage, sometimes sing instead of *Si*, *Si* flat (*Se*); changing the pluperfect into a perfect fourth, thus:

The difficulty, just named, sometimes found in singing two major thirds in succession, is caused by the pluperfect fourth between the lower note, *Fa*, of the former third, and the upper note, *Si*, of the latter.

Fig. 26.

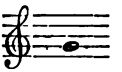


The impression of the *Fa* remains on the ear till we reach the *Si*.

The pluperfect fourth is rather an interval of harmony than of melody. The sounds of which it is formed (the 4th and 7th) are the characteristic sounds of a scale; and those by which, as a rule, it is immediately followed are the most important sounds of the chord of the tonic. Let us ascertain this practically.

Form the class into two divisions.

Sing after me this note.



First division sing *Sol–Si*, and sustain *Si;* second division sing *Sol–Fa*, and sustain *Fa.* Then—

First division pass from *Si* to *Do;* second division from *Fa* to *Mi.*

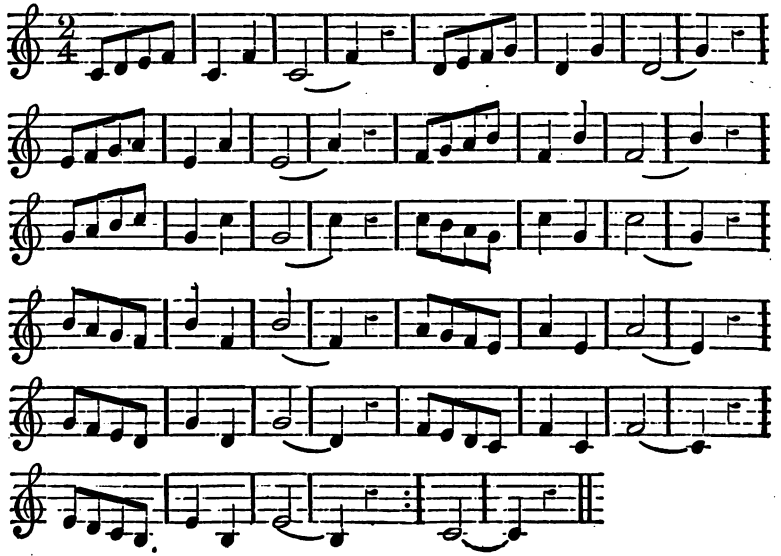
Difficult as it may be, however, we must learn to sound the pluperfect fourth. The following exercises present examples of all the fourths in the natural scale.

Touch on your hand and sing the following, the pupils imitating.

No. 17.

No. 18.

No. 19.



CHAPTER XXI.

Fifths. Inversion.

(*Prepare Figs.* 27, 28 *and* 29.)

When the lower note of an interval is placed an octave higher, or the higher an octave lower, the interval is said to be *inverted.*

Fig. 27.

A fourth on inversion becomes a fifth.

By inversion a different interval is formed by notes of the same name. *Do–Fa* form a fourth, *Fa–Do* a fifth.

Like the fourths, their inversions the fifths are all perfect but one, which is *im*perfect. The contents of a perfect fifth are three tones and one semitone, of an imperfect fifth two tones and two semitones.

Fig. 28.

The *im*perfect fifth is the inversion of, and therefore formed by notes of the same name as, the *plu*perfect fourth.

The imperfect fifth, like its inversion, the pluperfect fourth, is sparingly used in melody. A succession of fifths is somewhat more difficult to sing than a succession of fourths, and much more difficult than a succession of thirds. The natural scale includes *six* perfect fifths (as it includes six perfect fourths), and *one* imperfect.

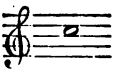
Fig. 29. FIFTHS.

Note that the one imperfect fifth is formed on the 7th of the scale.

Like the pluperfect fourth, the imperfect fifth is rather an interval of harmony than of melody, and for precisely the same reason. It is composed of the same characteristic sounds of the scale (the 4th and 7th), which again tend towards the most important sounds of the tonic chord (the 3rd and the 8th).

Form the class into two divisions.

Sing after me this note.



First division sing *Do–Fa*, and sustain *Fa;* second division sing *Do–Si*, and sustain *Si*. Then—

First division pass from *Fa* to *Mi;* second division from *Si* to *Do*.

No. 20.

No. 21.

No. 22 is in triple time; each foot (and measure) consists of three beats. The numerator of the fraction forming the time signature shows this.

As a preparation for No. 22, *make the pupils beat several measures of triple time, singing in each, first a dotted minim, then a minim and a crotchet, then three crotchets—on Sol.* (See Chap. X.)

No. 22.

CHAPTER XXII.

Sixths, Major and Minor.

(*Prepare Figs.* 30 *and* 31.)

Fig. 30.

A THIRD on inversion becomes a *sixth.*

Like the thirds, their inversions the sixths are called *major* and *minor.*

The contents of a major third are four tones and one semitone, of a minor sixth three tones and two semitones. On inversion the major thirds become minor sixths, and the minor thirds major sixths. Compare the upper notes of Fig. 31 with the lower. The natural scale presents examples of four major sixths and three minor.

Fig. 31. SIXTHS AND THIRDS.

The major and minor sixths, like the major and minor thirds, their inversions, are found freely intermixed in musical passages. We meet with the one as often as the other, and sing them with equal ease; often, perhaps, without recognising their quality.

The pupils who cannot reach the highest notes in the following, can invert the intervals they form, singing thirds instead of sixths.

No. 23.

No. 24.

No. 25.

CHAPTER XXIII.

Sevenths, Major and Minor.

(*Prepare Figs.* 32 *and* 33.)

Fig. 32.

A SECOND on inversion becomes a seventh.

Like the seconds, their inversions, the sevenths, are called major and

minor. The contents of a major seventh are five tones and one semitone, of a minor seventh four tones and two semitones. On inversion the major sevenths become minor seconds, and the minor sevenths major seconds.

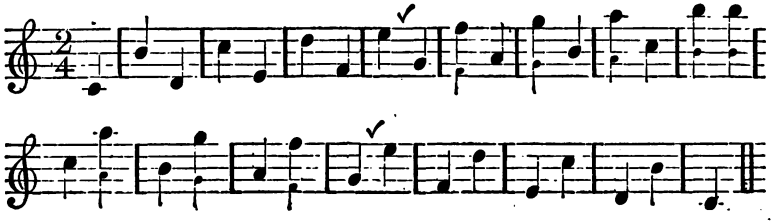
Compare the upper notes of Fig. 33 with the lower. The natural scale presents examples of two major sevenths (only), and of five minor. Major sevenths are rarely employed in vocal melody.

Fig. 33. SEVENTHS AND SECONDS.

The pupils who cannot reach the higher notes in the following, can invert the intervals they form, singing seconds instead of sevenths.

No. 26.

No. 27.



No. 28.

CHAPTER XXIV.

Octaves.

(*Prepare Figs.* 34 *and* 35.)

Fig. 34.

THE octave is the inversion of the unison.

Though, for convenience, sometimes classed among intervals, the unison is not an interval; for an interval is the relation between two different sounds.

The natural scale presents examples of only one kind of octave, which is called *perfect*.

Fig. 35. OCTAVES.

The pupils who cannot reach the higher notes in the following, can invert the intervals, singing unisons instead of octaves.

No. 29.

No. 30.

No. 31.

CHAPTER XXV.

Altered Sounds.

(*Prepare Figs.* 3 *and* 36.)

THE raising or lowering of a sound to the extent of a semitone, or, in other words, the substitution of an altered, *i.e.*, a sharp or a flat, sound for a natural sound of the same name, is indicated on the hand by touching the roots of the fingers for the former, and the tips for the latter. (See Chap. XII.)

Give a few examples.

Touch on your hands and sing after me some passages including altered notes.

In singing we call *Si* flat, *Se* (pronounced *Say*), and *Fa* sharp, *Fe* (pronounced *Fay*).

In musical notation the *alteration* of a sound is indicated by placing a *flat* or a *sharp* before the note representing it. (See Fig. 36.)

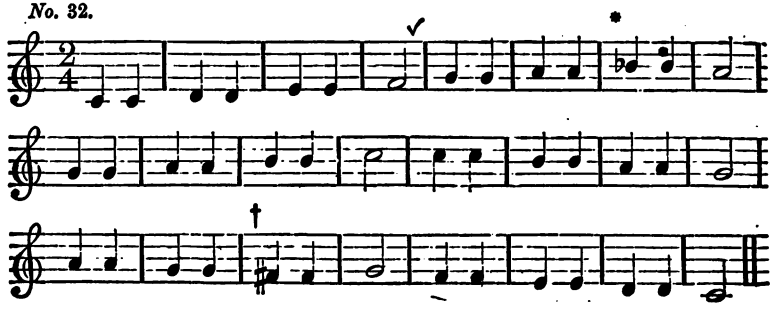
Fig. 36.	Flat.	Sharp.	Natural.
	♭	♯	♮

Thus, in Nos. 32 and 33, *Si* flat (*Se*) is substituted for *Si* natural at *; consequently, instead of rising a tone after singing *La*, we shall rise only a semitone. So at †, *Fa* sharp (*Fe*) is substituted for *Fa* natural; consequently, instead of falling a tone after singing *Sol*, we shall fall only a semitone.

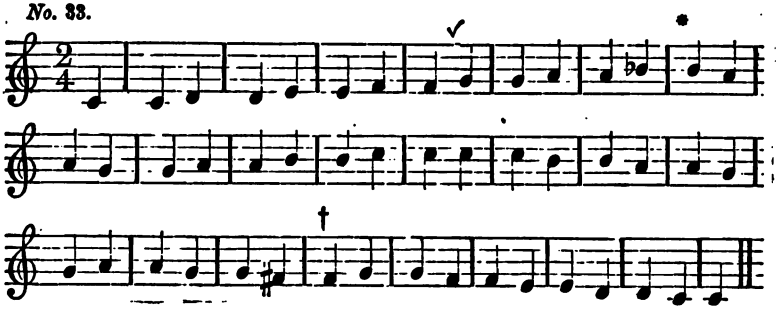
Verify these intervals in Fig. 3.

A sharp or a flat temporarily or *accidentally* introduced (as in Nos. 32 and 33), only affects the notes of the same name in the same measure with it; unless, as at * and † (No. 33), the first note of one measure is identical with the last in the measure before it. The restoration of a sharp or flat note to its original position in the same measure is indicated by placing a *natural* (see Fig. 36) before it.

No. 32.



No. 33.



CHAPTER XXVI.

Common Time. The Semibreve.

(*Prepare Figs.* 37, 38 *and* 39.)

In duple time, as we have seen, the foot, though not always coincident with the measure, is equal to it. Every measure of duple time includes two beats—one strong, one weak.

This frequent recurrence of strong beats has, in practice, been found tiresome to the ear, and has given rise to another variety of measure, in which two measures of duple time are thrown into one.

Music thus distributed into measures of four beats is said to be in *common* time. As this epithet implies, it is the distribution in most common use.

As, in duple time, each measure consists of or requires two beats, and as in triple time each measure requires three, so, in common or quadruple time, each measure requires *four* beats.

The beats of common time are made *Down*, *Left*, *Right*, and *Up*.

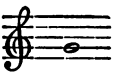
Give an example.

Make four beats several times successively, saying *Down* to the first beat, *Left* to the second, *Right* to the third, and *Up* to the fourth.

In common, as in every other kind of time, the first or down beat is the strong beat—that on which the principal emphasis falls. There is also, where the contents of the measure allow it, an emphasis on the third beat; though this is never so strong as that on the first.

To our stock of notes we must now add the *semibreve*, which lasts during *four* beats; being twice as long as a minim, and four times as long as a crotchet.

Sing *Sol* several times in succession, making *four* beats to each *Sol*.

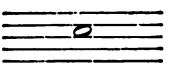


Sing the scale of *Do*, up and down, making each note a semibreve. Sing the upper *Do* twice.

The semibreve is an open note without a stem. The semibreve rest is a short thick stroke, always *hanging from* a line. It is sometimes (not always) made a little longer than the minim rest, from which, however, it is *always* distinguished by its position—*under* a line. (See Fig. 38.)

Semibreve.

Fig. 37.

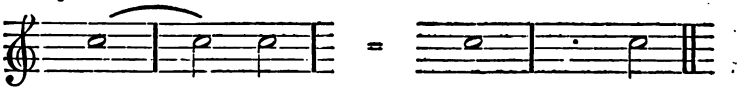


Semibreve Rest.

Fig. 38.

The semibreve, like the minim and crotchet, can be prolonged one half. As, of itself, a semibreve occupies an entire measure of common time, the dot after it must occupy the first half of the next measure; the dotted semibreve, in common time, is, however, almost an absolute form, the prolongation of a semibreve being made by means of a tye or bind.

Fig. 39.



The signature of common time (see No. 34) is not, as might be supposed, the initial letter of the word *common*, but properly a half-circle,

the symbol of what was once regarded as *imperfect* time, in contradistinction to *perfect* or triple time, formerly indicated by an entire circle.

Read the following in time, calling each note by its pitch name.

No. 34.

Only the 1*st or upper part of No.* 35 *should be attempted by a class thus far advanced; the* 2*nd being reserved for future practice, sung by a more advanced class, or played on an instrument.*

No. 35.

CHAPTER XXVII.

Essential Sharps and Flats.

(*Prepare Figs.* 40, 41 *and* 42.)

Two notes of the same name, but of different pitch, *e.g.*, *Si* and *Si* flat, *Fa* and *Fa* sharp, are never found in the same diatonic scale; for a diatonic scale consists of eight sounds, seven of them having quite different names, the eighth only having the same name as the first. *All* sounds have the same names as their octaves. Nos. 32, 33, and 35 are, therefore, not throughout in the same scale; a portion of each is in a scale of which *Si* flat forms a constituent sound; another portion is in a scale of which *Fa* sharp forms a constituent sound. Of these scales we shall now speak.

The quality of any interval may be altered, as we have seen, by raising or lowering one of the two notes composing it. Availing ourselves of this expedient, we can form a scale exactly like that of *Do*—the "natural" scale—in the order of its intervals, beginning on any sound whatever.

By the alteration of *one* note in each, we can form such scales on *Sol* and on *Fa*.

Fig. 40.

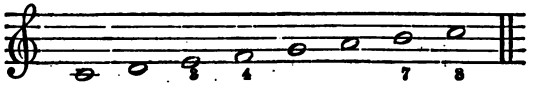


Fig. 41.

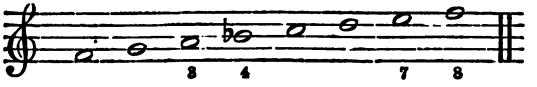
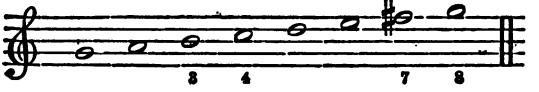


Fig. 42.



Of Fig. 40 the tonic is *Do*, the 3rd and 4th are *Mi* and *Fa*, and the 7th and 8th *Si* and *Do*. Of Fig. 41 the tonic is *Fa*, and the 3rd and 4th are *La* and *Si*. *La* and *Si unaltered* would be a tone apart; it is necessary to alter *one* of them, so as to make them a semitone apart; this is done by lowering *Si* to *Si flat*. *Mi* and *Fa*, the 7th and 8th (of Fig. 41), require no alteration; they are already (naturally) a semitone apart.

So of Fig. 42, the tonic is *Sol*, and the 7th and 8th are *Fa* and *Sol*. *Fa* and *Sol unaltered* would be a tone apart; it is necessary to alter one of them, so as to make them a semitone apart. This must be done by raising *Fa* to *Fa sharp*. *Si* and *Do*, the 3rd and 4th (of Fig. 42), require no alteration; they are already (naturally) a semitone apart.

Name the sounds of the scale of *Do*, ascending and descending, making the manual signs of tone and semitone.

Name the sounds of the scale of *Fa*, with the same manual signs.

Name the sounds of the scale of *Sol*, with the same manual signs.

These scales, being identical in their *construction*, are, though different in pitch, identical in their effect or *tune*.

In like manner, we could form scales beginning on *Re*, *Mi*, *La*, and *Si*, and even on notes, of whatever names, already made sharp or flat. For the present our practice will be limited to the scales of *Sol* and *Fa*.

CHAPTER XXVIII.

Transposition.

(*Prepare Figs.* 43, 44, 45, 46 *and* 47.)

By *transposition* is meant the placing of a musical passage in a different scale from that in which it has been already placed or performed. By transposition a passage is not in itself changed, though its place in the great system of musical sounds is. The melody or tune of a musical passage, by which alone we are enabled to recognise it, depends on the intervals or relations of the sounds of which it is made up. Transposition in no way affects these; it simply affects the *pitch* of these sounds, and affects them all to exactly the same extent.

Fig. 43, a passage from a well-known Welsh melody, is in the scale of *Do*. Listen to it.

Fig. 43.

Suppose I should think that this passage would sound better, or that somebody would sing it better, at a little higher pitch, I could transpose it into *Re*, thereby *raising* every note *a tone*. To do this I must make every *Fa* and every *Do* sharp; because *Fa* natural is only a semitone above *Mi*, and *Do* natural only a semitone above *Si*.

Compare the altered notes of Fig. 44 *with their corresponding notes in Fig.* 43. *Sing Fig.* 44. *Call Do* ♯ *Da.*

Fig. 44.

Or suppose, on the contrary, I wanted the passage at a little *lower* pitch, I could transpose it into *Si* ♭, therein *lowering* every note *a tone.* Here I must make every *Mi*, as well as every *Si*, flat; for *Mi* and *Si* natural are each a semitone only below *Do.*

Compare, as before. Sing Fig. 45. *Call Mi* ♭ *Me.*

Fig. 45.

Or, again, suppose—perhaps for instrumental performance—I wanted to raise or lower this passage very considerably, I could transpose it either into *Fa* or *Sol*, a perfect fourth or a perfect fifth higher or lower. Here, in the one instance, I must make every *Si* flat, and in the other every *Fa* sharp.

Compare, as before. Sing Fig. 46.

Fig. 46.

Fig. 47.

Nos. 40, 42 and others are severally transpositions of exercises already practised into the scales of *Fa* and of *Sol.* In singing them you will more thoroughly realize what has just been said, for you will not only recognise each transposed exercise, but at the same time feel that its pitch is altered—occasionally to such an extent as to take it out of the compass of your voices.

CHAPTER XXIX.

Seconds—resumed.

Of each of the intervals in the diatonic scale there are two qualities.

Major and minor Seconds. Minor and major Sevenths.	Inversions.
Major and minor Thirds. Minor and major Sixths.	Inversions.
Perfect and pluperfect Fourths. Perfect and imperfect Fifths.	Inversions.

As every diatonic scale is constructed in the same manner, the various intervals in it will occupy the same places. Thus, the 1st and 3rd of *every* scale will form a *major* third, the 2nd and 4th a *minor* third, &c.

This will be shown in detail in the Figures which precede each of the following series of exercises.

The flats or sharps *essential* to the formation of major scales are not placed immediately before the notes they affect, but at the beginning of the stave on which those notes are placed, after the clef. In this position they form the *scale signature*, and affect not only the notes on the same line or space with them, but their octaves.

The *seconds* found in the diatonic scale are major or minor. The minor seconds, of which there are but two, fall between the 3rd and 4th sounds, and the 7th and 8th sounds, so that the sounds in every scale which bear minor seconds are the 3rd and 7th.

Fig. 48.

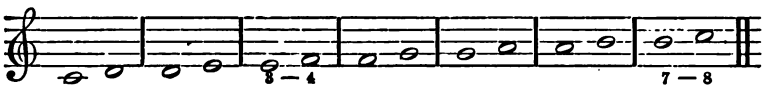


Fig. 49.

Fig. 50.

No. 36 is a transposition of No. 13. Before attempting it, let us repeat No. 13. (*To be done.*)

As a preparation for No. 36, touch and sing with me some passages in the scale of *Fa.* Call *Si* (*flat* in the scale of *Fa*), *Se.*

No. 36. *Transposition of No.* 13.

As a preparation for No. 37, touch and sing with me some passages in the scale of *Sol.* Call *Fa* (*sharp* in the scale of *Sol*), *Fe.*

No. 37. *Transposition of No.* 13.

CHAPTER XXX.

Triads.

(*Prepare Figs.* 51, 52 *and* 53.)

"THE skips in most common use are those between the sounds which form the common chord of the sound on which a scale begins—the tonic." (Chap. VIII.) Next to these in order (of common use) are the skips found in the chords of the 5th, or dominant, and of the 4th, or subdominant.

Thus the skips we may look for in a piece of music in the scale of *Do* are those found in the chords of *Do*, *Sol*, and *Fa*; in the scale of *Fa*, of *Fa*, *Do*, and *Si* ♭; and in the scale of *Sol*, of *Sol*, *Re*, and *Do*.

Compare Figs. 51, 52 and 53.

Fig. 51.

Fig. 52.

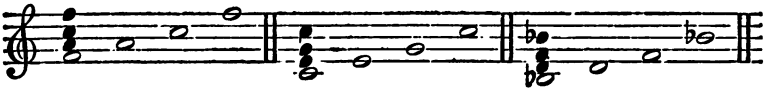
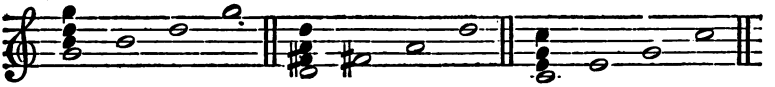


Fig. 53.



Note that the tonic of *Do*, the dominant of *Fa*, and the subdominant of *Sol* are identical; as are the dominant of *Do* and the tonic of *Sol*; and the subdominant of *Do* and the tonic of *Fa*.

Also that of each of these chords the *first* third is major, the *second* minor, and the fourth (between the two upper notes) perfect. They are all therefore, though different in *pitch*, exactly alike in *tune*.

Touch on your hand and sing (the pupils with you) some passages drawn from any of these chords.

No. 38 presents one of the most striking examples of a melody composed almost exclusively of scale progressions, the exceptions (three only) being skips between notes of the chord of the tonic *Fa*, and of the dominant *Do*.

The 2nd and 3rd parts of No. 38 should not be attempted at present, unless by a more advanced class, or on an instrument.

No. 39 is a transposition of No. 38 (the melody only) into *Sol*.

SOLFEGGIO.

No. 38.

Allegro.

Transposition (otherwise unaltered) from BEETHOVEN'S "Choral Symphony."

No. 39. *Transposition of No. 38.*

The word "Allegro," at the head of No. 38, is one of a large number of Italian words by which composers express the pace, intensity, and style of performance of their compositions, or any particular portions of them. A list of these words, with their meanings, is given in Chapter LVIII. for reference when a new one is introduced.

Marks of expression, p, f, *and the like, need receive no attention till the music they concern has been solfaed in time and tune.*

CHAPTER XXXI.

Thirds—resumed.

(*Prepare Figs.* 54, 55 *and* 56.)

The *thirds* found in the diatonic scale are *major* and *minor*. The major thirds, of which there are three, fall between the 1st and 3rd, the 4th and 6th, and the 5th and 7th sounds of the natural scale. The sounds in *every* scale therefore which bear major thirds are the 1st, 4th and 5th.

Fig. 54.

Fig. 55.

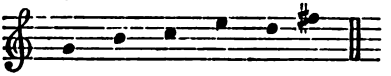
Fig. 56.

Touch on your hands and sing with me—

The major thirds in *Do.*

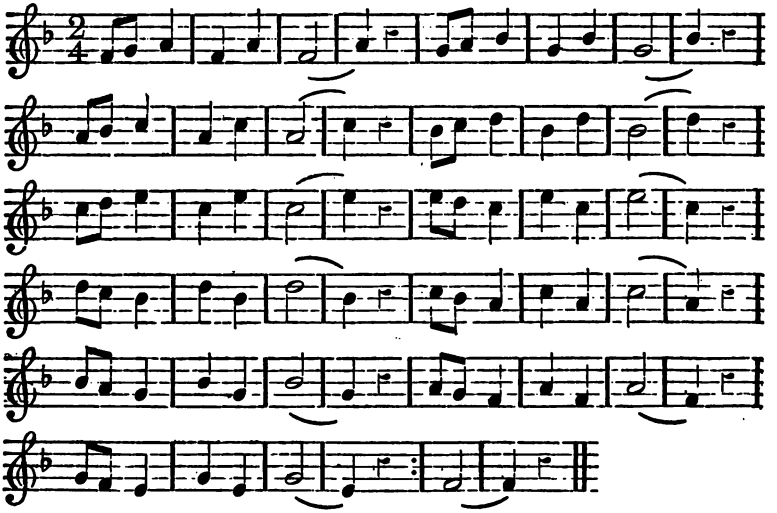
The major thirds in *Fa.*

The major thirds in *Sol.*



As a preparation for Nos. 40 *and* 42, *touch and sing* (*the pupils with you*) *a few passages of thirds in* Fa *and* Sol.

No. 40. *Transposition of No.* 16.



This Song, and all the Pieces with words which follow, should be read in time and solfaed before being sung. Only the 1*st or upper part should be attempted by a class thus far advanced; the* 2*nd being reserved for future practice, sung by a more advanced class, or played on an instrument.*

No. 41. **SONG.**

The Words by JOHANNA BAILLIE. The Music by JOHN HULLAH.

Andante.

Up! quit thy bower, late wears the hour, Long have the
Up! time will tell, the morn - ing bell Its ser - vice
rooks caw'd round thy bower; O'er flower and tree loud hums the
sound has chi - med well; The a - ged crone keeps home a -
p
bee, And the wild kid sports right mer - ri - ly. The sun is
lone, And the reap - ers to the field are gone. Lose not these
cres.
f
dim.
bright, the skies are clear; Wake, La - dy, wake, and hast - en
hours so cool, so gay; Lo! while thou sleep'st they haste a -
here. Wake, La - dy, wake, and hast - en here.
way. Lo! while thou sleep'st they haste a - way.

No. 42. *Transposition of No. 16.*

Nos. 43 and 45 are *Rounds.* A Round is a species of *Canon, i.e.*, a piece of music written and performed according to some *rule.* The rule in the case of a Round is that each voice or set of voices sings each part in succession; the 2nd voices beginning the 1st part when the 1st voices begin the 2nd, and so on in turn. It is usual to go on singing a Round till the 1st voices have sung all the parts three times. The *pause*, in a Round or Canon, merely indicates the place at which it may be brought to a close. Otherwise it should not be observed.

ROUND.

No. 43. SABBATINI.

Allegretto.

1
2
3
Ye spor - tive birds, in cir - cles high, Your
And ye who make the woods more nigh, All
May joy be yours, in flight and
flight for ev - er wing - ing.
vo - cal with your sing - ing.
song, To - day, and long.

CHAPTER XXXII.

Fourths—resumed.

(*Prepare Figs.* 57, 58, 59 *and* 60.)

THE *fourths* found in the diatonic scale are *perfect* and *pluperfect.* The pluperfect fourth or tritone, for there is but one, falls between the 4th and 7th sounds of the natural scale. The one sound in every scale therefore which bears a pluperfect fourth is the 4th.

Touch on your hands and sing with me—

The one tritone in *Do.*

The one tritone in *Fa.*

The one tritone in *Sol.*

The pluperfect fourth is rarely met with in Part Music, or even *Melody* for a single voice. It is chiefly and most effectively used in Recitative—a kind of music partaking as much of the nature of speech as of song. Thus, in Handel's "Messiah" we find—

Fig. 57.

Fig. 58.

Fig. 59.

Fig. 60.

The 5th and 8th of every common chord are separated by a fourth. The fourths found in the chords of the tonic (1st), dominant (5th), and subdominant (4th) of every scale are those in most common use. These are—

In the scale of *Do*, *Sol–Do*, *Re–Sol*, *Do–Fa*.

In the scale of *Fa*, *Do–Fa*, *Sol–Do*, *Fa–Si*♭.

In the scale of *Sol*, *Re–Sol*, *La–Re*, *Sol–Do*.

No. 44. *Transposition of No.* 19.

No. 45. ROUND.

Old English.

No. 46. *Transposition of No. 19.*

No. 47. ROUND.

Allegretto.

1
2
3
Now the ro - sy morn ap-pear - ing, Paints with gold the
Warbl - ing birds the day pro-claim - ing, Ca - rol sweet the
See, con-tent the hum-ble glean - er Takes the scat - ter'd
ver - dant lawn; Bees on banks of thyme dis-port-ing,
live - ly strain; They for-sake their lea - fy dwell-ing
ears that fall. Na - ture all her chil - dren view - ing,
2
Sip the sweets, and hail the dawn.
3
To se - cure the gold - en grain.
1
Kind - ly bounteous, cares for all.

No. 48. MORNING SONG.

Words from "Original Poems." Music by JOHN HULLAH.

1st Ver. Thrice wel - come to my op' - ning eyes, The
2nd Ver. Like cheer - ful birds, as I be - gin This
morn - ing beam, that bids me rise To all the joys of
day, O keep my soul from sin, And all things shall be
youth; For Thy pro - tec - tion whilst I slept, O
well. Thou giv - est health, and clothes, and food, Pre -
Lord, my hum - ble thanks ac - cept, And bless my lips with
serve me in - no - cent and good, Till ev'n - ing's cur - few
truth, My lips with truth.
bell, Till cur - few bell.

No. 49. ROUND.

Allegro. JOHN HILTON.

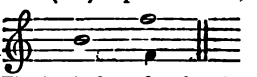
1
Come, fol - low, fol - low, fol - low,
2
Whith - er shall I fol - low? fol - low, fol - low,
3
To the green - wood, to the green - wood,
Fol - - - low, fol - low, fol - low me.
2
Whith - er shall I fol - low? fol - low thee.
3
To the green - wood, green - wood tree.
1

CHAPTER XXXIII.

Fifths—resumed.

(*Prepare Figs.* 61, 62 *and* 63.)

The (one) imperfect fifth.



The (one) pluperfect fourth.

The *fifths* found in the diatonic scale are *perfect* and *imperfect*. The imperfect fifth, for there is but one, is the inversion of the pluperfect fourth; it consequently falls between the 7th and (octave) 4th sounds.

So that the one sound in every scale which bears an imperfect fifth is the 7th.

Fig. 61.

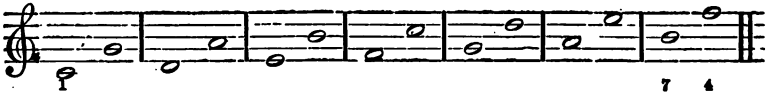


Fig. 62.

Fig. 63.

Touch on your hands and sing with me—

The one imperfect fifth in *Do.*

The one imperfect fifth in *Fa.*

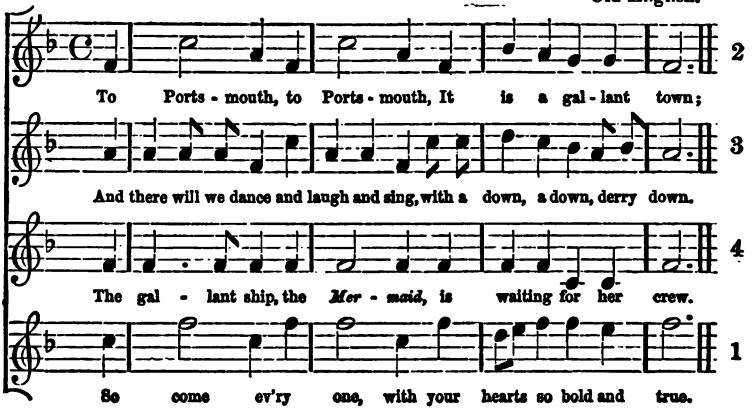
The one imperfect fifth in *Sol.*

Repeat No. 13.

No. 50. *Transposition of No. 13.*

No. 51. **ROUND.**

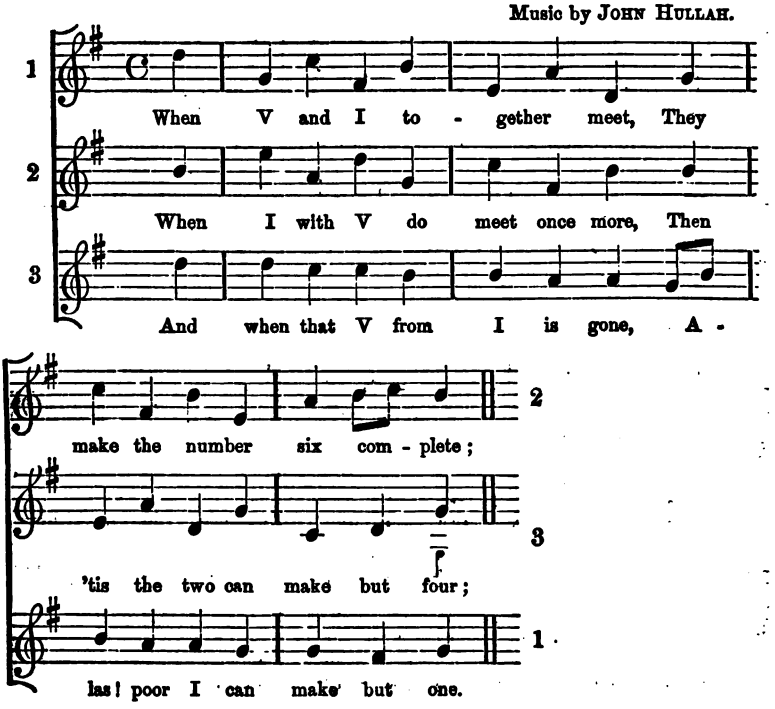
Old English.


1
2
3
4
To Ports - mouth, to Ports - mouth, It is a gal - lant town;
And there will we dance and laugh and sing, with a down, a down, derry down.
The gal - lant ship, the *Mer - maid*, is waiting for her crew.
So come ev'ry one, with your hearts so bold and true.

No. 52. *Transposition of No. 13.*

No. 53. ROUND.

Music by JOHN HULLAH.


1
When V and I to - gether meet, They
2
When I with V do meet once more, Then
3
And when that V from I is gone, A -
make the number six com - plete;
2
'tis the two can make but four;
3
las! poor I can make but one.
1

No. 54.

EVENING SONG.

Words from "Original Poems." Music by JOHN HULLAH.

Re - ceive my bo - dy, pret - ty bed; Soft
My hours mis - spent this day I rue, My
pil - low, O, re - ceive my head, And thanks, my pa - rents
good things done, how ve - ry few! For - give my faults, O,
kind, For com - forts you for me pro - vide; Your
Lord; This night, if in Thy grace I rest, To -
pre - cepts still shall be my guide, Your love I'll keep in
mor - row may I rise re - fresh'd, To keep Thy ho - ly
mind, Your love I'll keep in mind.
word, To keep Thy ho - ly word.

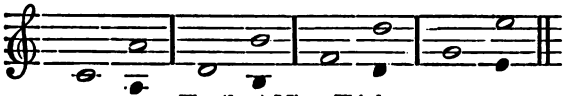
CHAPTER XXXIV.

Sixths—resumed.

(*Prepare Figs.* 64, 65, 66 *and* 67.)

THE *sixths* found in the diatonic scale, like their inversions the thirds, are *major* and *minor*. The major sixths are the inversions of the minor thirds. There are therefore four of them.

Fig. 64. The (four) Major Sixths.



The (four) Minor Thirds.

Thus, the sounds in every scale which bear major sixths are the 1st, 2nd, 4th and 5th.

Fig. 65.

Fig. 66.

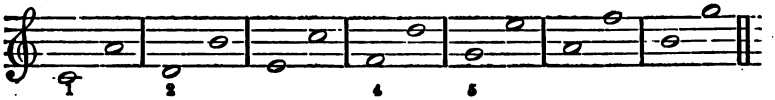
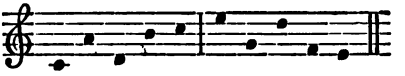


Fig. 67.

Touch on your hands and sing with me—

The four major sixths in *Do.*



The four major sixths in *Fa.*

The four major sixths in *Sol.*

No. 55. *Transposition of No. 19.*

No. 56. SONG.

Words by E. CAPERN. Music by JOHN HULLAH.

1st Ver. Tell me what the mill doth say, Clit - ter, clat - ter,
2nd Ver. Hearken what the rill doth say, Rip - ple, dip - ple,
1st Ver. Tell me what the mill doth say, Clit - ter, clat-ter, clit - ter, clat-ter,
2nd Ver. Hearken what the rill doth say, Rip - ple, dip-ple, rip - ple, dip-ple,
night and day; While we sleep and while we wake,
all the day, Sweet as sky-lark on the wing,
night and day; While we sleep and while we wake,
all the day, Sweet as sky - lark on the wing,
Clit - ter, clat - ter, it doth make; Ne - ver i - dle,
Rip - ple, dip - ple, it doth sing; Ne - ver i - dle,
Clitter, clatter, clitter, clat - ter, it doth make; Clitter, clatter, clitter, clatter,
Ripple, dipple, ripple, dip - ple, all the day; Ripple, dipple, ripple, dipple,

ne - ver still, What a work - er is the mill.
ne - ver still, What a work - er is the rill.
Clitter, clatter, clitter, clatter, What a work - er is the mill.
Ripple, dipple, ripple, dipple, What a work - er is the rill.

No. 57. *Transposition of No. 19.*

ROUND.

No. 58. Music by JOHN HULLAH.

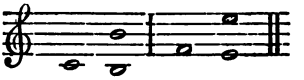
1
2
3
The five bells of Os - ney, How
Their voi - ces car - ry, as they go, An -
Old Thames e - choes back a - gain The
cheer - i - ly they play; Re, Do, Si, La, Sol, La, Re,
o - ther deep - er sound; Boom - ing,
bur - den and the song; Glid - ing,
Do, Si, La, Sol, La, Re, Do, Si, La, Sol, La, they say.
2
boom - ing, boom - ing round.
3
glid - ing, glid - ing a - long.
1
p

CHAPTER XXXV.

Transposition. Sevenths.

(*Prepare Figs.* 68, 69 *and* 70.)

The (two) Major Sevenths.



The (two) Minor Seconds.

THE *sevenths* found in the diatonic scale, like their inversions the seconds, are *major* and *minor*. The major sevenths are the inversions of the minor seconds; there are therefore only two of them.

Thus, the sounds in *every* scale which bear major sevenths are the 1st and the 4th.

Fig. 68.

Fig. 69.

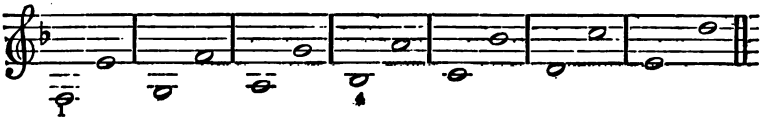


Fig. 70.

Touch on your hands and sing with me—

The two major sevenths in *Do.*

The two major sevenths in *Fa.*

The two major sevenths in *Sol.*

No. 59. *Transposition of No. 19.*

No. 60. *Transposition of No. 19.*

Both attempting No. 61, *call attention to the points whereat the 2nd part rises above the 1st—indicated by inversion of the stems of notes.* See * * * * .

No. 61.

SONG.

Words by GRAVES. Music by JOHN HULLAH.

Ye gen - tle war-blers! hith - er fly, And shun the noon - tide
My trees for you, ye art - less tribe, Shall store of fruit pre -
heat; My shrubs a cool - ing shade sup - ply, My groves a safe re -
serve; Oh, let me thus your friend-ship bribe, Come, feed with - out re -
treat. Here free - ly hop from spray to spray, And weave the mos - sy
serve. For you these cher - ries I pro - tect, To you these plums be -
nest, Here rove and sing the live-long day, At night, here sweetly rest.
long; Sweet is the fruit that you have peck'd, But sweeter far your song.

CHAPTER XXXVI.

Octaves—resumed.

THE octaves found in the diatonic scale are all alike, perfect. The octave is not the inversion of an interval, but of the unison.

No. 62. *Transposition of No. 19.*

No. 63. *Transposition of No. 19.*

*Call attention to the inverted stems at * * in No. 64.*

No. 64.

SONG.

Words by CARLYLE. Music by JOHN HULLAH.

So here hath been dawn-ing An - oth - er blue day;
Be - hold it a - fore time No eye ev - er did:
Think, wilt thou let it Slip use - less a - way?
Soon it for e - ver From all eyes is hid.
Out of E - ter - ni - ty This day is born;
Here hath been dawn - ing An - oth - er blue day:
In - to E - ter - ni - ty Doth it re - turn.
Think, wilt thou let it Slip use - less a - way?

CHAPTER XXXVII.

The Order of Scales and Scale Signatures.

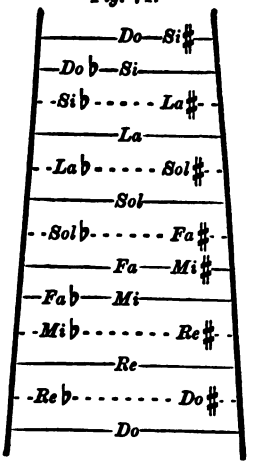
(*Prepare Figs.* 71, 72, 73, 74, 75, 76, 77, 78 *and* 79.)

BETWEEN any two sounds separated by a tone another sound may be placed, whereby the tone is divided into two semitones. (Chap. XII.)

Each of these interposed sounds has two names. If we regard the sound between *Sol* and *La* as an elevation of *Sol*, we call it *Sol sharp*, if as a depression of *La*, *La flat*. Not only so, but the sounds immediately above *Mi* and *Si* may be regarded as elevations of those notes, and called *Mi sharp* and *Si sharp*; and the sounds immediately below *Do* and *Fa* as depressions of those notes, and called *Do flat* and *Fa flat*.

Any note—natural, sharp or flat—*might* be used as a tonic.

Fig. 71.



There are seven "natural" notes, and each of these is alterable *both* by a sharp and by a flat. It follows, therefore, that no fewer than twenty-one scales *might* be employed in music; seven beginning on natural notes, seven on flat notes, and seven on sharp notes.

The number of scales, however, in actual use is much smaller than this. It is, save transiently, limited to fourteen. Only one note, *Do*, made sharp *as well as* flat, is ever used as a tonic; the remaining six notes being used as tonics when made *either* sharp *or* flat; not both.

The tonics in actual use are—

Natural: *Do*, *Re*, *Mi*, *Fa*, *Sol*, *La*, *Si*.

Sharp: *Do*♯ *Fa*♯

Flat: *Do*♭, *Re*♭, *Mi*♭, *Sol*♭, *La*♭, *Si*♭.

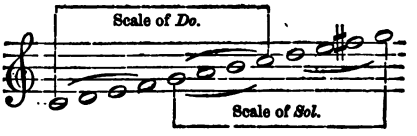
Each of the scales formed on these tonics requires, to make it like the natural scale (*Do*) in the order of its intervals, a *different* number of sharps or flats. *Mi*, for instance, requires four sharps, *Mi*♭ three flats. Were the number and order of sharps and flats in the various scales irregular or without system, it would be hard to remember them. Such, however, is not the case. The scales grow out of one another, and add to their number of sharps or flats according to a very simple rule which has no exceptions.

The natural scale, you will remember, is divided into two equal parts exactly alike in the order of their intervals. These equal parts or "half-scales" we will now call by their proper name, *tetrachords*. A tetrachord consists of four sounds separated by two tones and a semitone.

What is true of the natural scale is true of every scale formed like it.

If the second or upper tetrachord of one scale be taken as the first or lower tetrachord of another, and this other be completed by a *new* second tetrachord above it, this new tetrachord will always require an additional sharp.

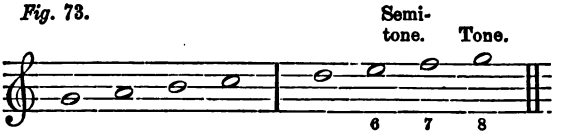
Fig. 72.



The upper tetrachord of *Do* consists of *Sol*, *La*, *Si*, *Do*. If these four notes be taken as the lower tetrachord of a scale beginning on *Sol*, a new tetrachord must be added on to complete it. This new tetrachord

will require the 3rd sound, *Fa*, to be made sharp; otherwise there would be a semitone between the 6th and 7th sounds, *Mi* and *Fa*, and a tone between the 7th and 8th, *Fa* and *Sol*.

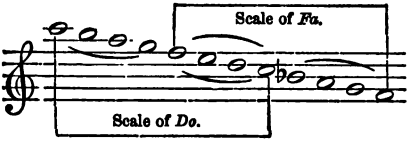
Fig. 73.



The same process reversed will be attended by a similar result.

If the first or lower tetrachord of one scale be taken as the second or upper tetrachord of another, and this other be completed by a new first tetrachord below it, *this* new tetrachord will require an additional *flat*.

Fig. 74.



The lower tetrachord of *Do* (in descending order) consists of *Fa*, *Mi*, *Re*, *Do*. If these four notes be taken as the upper tetrachord of a scale beginning on *Fa*, a new tetrachord will be required to complete it. This new tetrachord will require its 4th sound, *Si*, to be made flat; otherwise it would begin a semitone instead of a tone below the note above it, and, moreover, consist of three tones instead of two tones and a semitone.

Fig. 75.

The upper tetrachord of every ascending scale begins a *perfect* fifth above the lower. *Vice versâ;* the lower tetrachord of every descending scale begins a *perfect* fifth below the upper.

Fig. 76.

In a series of scales, the tonics of which are perfect fifths above one another, each scale requires for its completion a sharp more than the one before it. This sharp is invariably added to the 7th of the new scale, in order to make that 7th a leading note to the tonic.

In a series of scales, the tonics of which are perfect fifths below one another, each scale requires for its completion a flat more than the one before it. This flat is invariably added to the 4th of the new scale, in order to make that 4th a subdominant or perfect fourth to the new tonic.

The order of tonics perfect fifths above one another is as follows:—

Do, Sol, Re, La, Mi, Si, Fa♯, *Do*♯.

To which the leading notes, also perfect fifths above one another, are—

Si, Fa♯, *Do*♯, *Sol*♯, *Re*♯, *La*♯, *Mi*♯, *Si*♯

The order of tonics perfect fifths *below* one another is as follows—

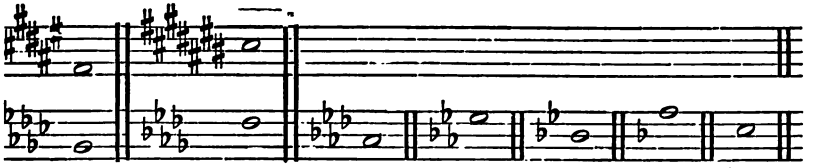
Do, Fa, Si♭, *Mi*♭, *La*♭, *Re*♭, *Sol*♭, *Do*♭.

To which the subdominants, also perfect fifths below one another, are—

Fa, Si♭, *Mi*♭, *La*♭, *Re*♭, *Sol*♭, *Do*♭, *Fa*♭.

The signature of every major scale is exhibited in Fig. 76. To keep within the limits of the stave every alternate sharp is placed a fourth below, instead of a fifth above, the one before it. The fourth is the inversion of the fifth. For the same reason every alternate flat is placed a fourth above, instead of a fifth below, the one before it. The fifth is the inversion of the fourth.

In scale signatures the *order*, whether of the sharps or flats, is never



changed. If there is *one* sharp in a signature, it is *Fa* ♯; if there are more sharps than one, *Fa* ♯ is always the *first*, *Do* ♯ the *second*, and so on. The same rule holds in respect to the flats.

The note after each signature in Fig. 77 is the tonic indicated by it. Observe that—

The last added sharp is always the *leading note*, or 7th of the scale—a minor *second* below the tonic; also that the last added flat is always the *subdominant*, or 4th of the scale—a perfect fourth above, or a perfect fifth below, the tonic. Therefore—

The tonic of the major scale is always to be found a minor *second above* the last added *sharp* of a signature, or a perfect *fourth below* the last added *flat*. For example—

If the last sharp is *Re* ♯, the tonic is *Mi*. If the last flat is *La* ♭, the tonic is *Mi* ♭.

The signatures over and under each other (in Fig. 76) are those of tonics practically identical—viz., *Si* and *Do* ♭, *Fa* ♯ and *Sol* ♭, *Do* ♯ and *Re* ♭. A change of name, like that from *Fa* ♯ to *Sol* ♭ is called an *enharmonic* change. Without the enharmonic change, the next tonic of the ascending series would be *Sol* ♯—of which the *leading note* would be *Sol double* sharp; and the next of the descending series, *Fa* ♭—of which the *subdominant* would be *Si double* flat.

A double sharp, formerly written ♯♯, is now commonly abbreviated thus, ×. There is no abbreviation of the double flat, which is expressed thus ♭♭.

A double sharp raises a note, and a double flat lowers a note, *two*

semitones. *Fa* × is therefore identical with *Sol* ♮, and *Si* 𝄫 with *La* ♮— *practically*, but not theoretically.

It is most important that the distinction *in name* between notes having the same sound should be always observed.

No *alteration*, by whatever number of sharps or flats, of either of the two notes forming an interval, can change its name; for this depends on the number of *positions* of the stave, *not* on the number of tones or semitones, it includes. From *Do* to *Fa* is a *fourth*, whether the *Do* or the *Fa* be natural, sharp, flat, double sharp, or double flat.

The intervals in Fig. 77 are all fourths, though of different *qualities*— some as yet unexplained.

Fig. 77.

Neither the double sharp nor the double flat ever appear in a signature; they are invariably *accidentals*.

When the signature is changed, *in the course* of a piece of music, for another of a lesser number of sharps or flats, the places of the latter are sometimes taken by *naturals*, in order that *special attention* may be directed to the change. The naturals should never appear but *once* in each part.

Fig. 78.

Fig. 79.

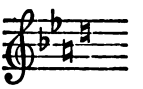


Fig. 78 exhibits a change of signature from *Si* to *Mi*; Fig. 79 from *La* ♭ to *Si* ♭. The naturals in both instances indicate the former, as well as the present, scale.

CHAPTER XXXVIII.

Modulation.

(*Prepare Figs.* 80, 81 *and* 82.)

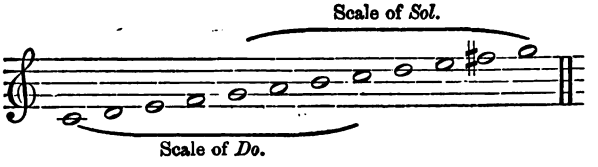
EVERY musical passage is said to be "in some particular scale" or key. By this is understood that some particular scale *prevails* in it, or furnishes most of the notes of which it is made up; not that every musical passage—still less every piece of music—is without exception in one scale. On the contrary, most pieces of music, and even many passages, deviate into scales other than those in which they begin, and are therefore said "to be."

This deviation, when made into scales *connected* with the original and principal scale, is called *modulation*; when made into scales not so connected it is called *transition*.

The scales most closely connected with one another are those which include the greatest number of notes *in common*, *i.e.*, which belong to both.

Thus, *Do* and *Sol* are as closely connected as possible; because they have six notes in common, and only one, *Fa*, which is not so; *Fa* being natural in *Do* and sharp in *Sol*.

Fig. 80.



Modulation is therefore more frequent than transition, and most frequent in respect to scales connected by the greatest number of notes *in common*.

The commonest modulations are those from a given scale to the scale a fifth above it, which requires but *one* additional *sharp*, or to the scale a fifth below it, which requires but *one* additional *flat*. Thus, the commonest modulations from *Do* are into *Sol* or into *Fa*.

To recognise quickly change of scale is very essential—sometimes indispensable—to the correct performance especially of vocal music. Occasionally it is very difficult, especially in singing from a single part. The following hints will assist in this recognition in the most common cases:—

The last sharp added to a signature is always applied to the 7th of the scale, the leading note; the last flat to the 4th, the subdominant. The tonic is, therefore, always to be found a semitone above the last added sharp, and a fourth below the last added flat.

This rule is *generally* as applicable to accidental as to essential sharps or flats. Fig. 81 begins in *Do* and ends in *Sol*, the dominant of *Do*. Fig. 82 begins also in *Do* and ends in *Fa*, the subdominant of *Do*.

Fig. 81. **Modulation into the Dominant.**

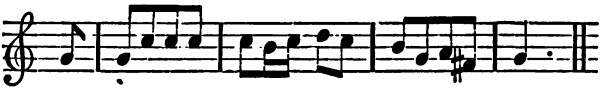


Fig. 82. **Modulation into the Subdominant.**

Modulation, especially in vocal music, is more often effected through the alteration of the *second* than any other interval, *i.e.*, by turning a major second into a minor, or a minor into a major. But any interval may be used as a means of modulation. This will be shown in the exercises which follow.

CHAPTER XXXIX.

Modulation—by Seconds.

(*Prepare Fig.* 83.)

By the alteration of one of the notes composing it, the quality of any particular second may be changed from major to minor, or *vice versâ*.

By substituting *Fa* ♯ for *Fa* ♮, we get a major second instead of a minor between *Mi* and *Fa* (♯), and a minor second instead of a major between *Fa* (♯) and *Sol*; and by substituting *Si* ♭ for *Si* ♮, we get a minor second between *La* and *Si* (♭), and a major second instead of a minor between *Si* (♭) and *Do*.

Fig. 83.

ALTERED SECONDS.

In making either of these alterations we quit the scale of *Do*, to which neither *Fa* ♯ nor *Si* ♭ belong, for other scales to which they do, *e.g.*, *Sol* and *Fa*.

Touch and sing with me—

Only the upper parts of the following exercises on Modulation should be attempted by a class thus far advanced; the lower being reserved for future practice, sung by a more advanced class, or played on an instrument.

No. 65.

No. 66.

CHAPTER XL.

Modulation—by Thirds.

(*Prepare Fig.* 84.)

By the alteration of one of the notes composing it the quality of any particular third may be changed from major to minor, and *vice versâ*. By substituting *Fa* ♯ for *Fa* ♮ we get a major third instead of a minor between *Re* and *Fa* (♯); and a minor third instead of a major between *Fa* (♯) and *La*; and by substituting *Si* ♭ for *Si* ♮ we get another minor third instead of a major between *Sol* and *Si* (♭); and a major third instead of a minor between *Si* (♭) and *Re*.

In making either of these alterations we quit the scale of *Do*, to which neither *Fa* ♯ nor *Si* ♭ belong, for the scales of *Sol* or *Fa* to which they do.

Fig. 84.

ALTERED THIRDS.

Touch and sing with me—

No. 67.

No. 68.

CHAPTER XLI.

Modulation—by Fourths.

(*Prepare Fig.* 85.)

By the alteration of one of the notes composing it, the quality of any particular fourth may be changed from perfect to pluperfect, or *vice versâ*.

By substituting *Si* ♭ for *Si* ♮, we get a perfect fourth between *Fa* and *Si* (♭), and a pluperfect fourth between *Si* (♭) and *Mi;* and by substituting *Fa* ♯ for *Fa* ♮, we get a pluperfect fourth between *Do* and *Fa* (♯), and a perfect fourth between *Fa* (♯) and *Si*.

In making either of these alterations we quit the scale of *Do*, to which *Fa* ♯ and *Si* ♭ do not belong, for *Sol* or *Fa* to which they do.

Fig. 85.

ALTERED FOURTHS.

Touch and sing with me—

No. 69.

No. 70.

CHAPTER XLII.

Modulation—by Fifths.

(*Prepare Fig.* 86.)

By the alteration of one of the notes composing it any fifth may be changed from perfect to imperfect, or *vice versâ*.

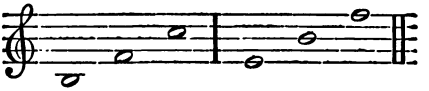
By substituting *Fa* ♯ for *Fa* we get a perfect fifth between *Si* and *Fa* (♯), and an imperfect fifth between *Fa* (♯) and *Do*; and by substituting *Si* ♭ for *Si* we get an imperfect fifth between *Mi* and *Si* (♭), and a perfect fifth between *Si* (♭) and *Fa*.

In making either of these alterations we quit the scale of *Do*, to which neither *Fa* ♯ nor *Si* ♭ belong, for the scale of *Sol* to which they do.

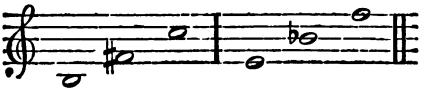
Fig. 86.

ALTERED FIFTHS.

Imperfect. Perfect. Perfect. Imperfect.



Perfect. Imperfect. Imperfect. Perfect.



Touch and sing with me—

No. 71.

No. 72.

CHAPTER XLIII.

Modulation—by Sixths.

(*Prepare Fig.* 87.)

By the alteration of one of the notes composing it any sixth may be changed from minor to major, or *vice versâ.*

By substituting *Fa* ♯ for Fa ♮ we get a major sixth instead of a minor between *La* and *Fa* (♯), and a minor sixth instead of a major between *Fa* (♯) and *Re;* and by substituting *Si* ♭ for *Si* ♮ we get a minor sixth instead of a major between *Re* and *Si* (♭), and a major instead of a minor between *Si* (♭) and *Sol.*

Fig. 87.

ALTERED SIXTHS.

Touch and sing with me—

No. 73.

No. 74.

CHAPTER XLIV.

Modulation—by Sevenths.

(*Prepare Fig.* 88.)

By the alteration of one of the notes composing it, any seventh may be changed from major to minor, or *vice versâ*.

By substituting *Si* ♭ for *Si* ♮ we get a minor seventh instead of a major between *Do* and *Si* (♭), and a major instead of a minor between *Si* (♭) and *La;* and by substituting *Fa* ♯ for *Fa* ♮ we get a major seventh instead of a minor between *Sol* and *Fa* (♯); and a minor seventh instead of a major between *Fa* (♯) and *Mi*.

In making either of these alterations we quit the scale of *Do*, to which neither *Fa* ♯ nor *Si* ♭ belong, for the scale of *Sol* or of *Fa*, to which they severally do.

Fig. 88.

ALTERED SEVENTHS.

Touch and sing with me—

No. 75.

No. 76.

The octaves in the natural scale are all perfect. The interval, therefore, admits of no alteration, and cannot be used as a means for modulation.

"Modulation, especially in vocal music (See Chap. XXXVIII.), is more often effected through the alteration of the second than any other interval." The following Song includes examples of every interval up to the sixth. Yet the two modulations (into the dominant and subdominant) are effected through the alteration of the seconds, *Sol–Fa* and *La–Si*.

No. 77.

THE TRAVELLER'S RETURN.

The Words by SOUTHEY. Music by JOHN HULLAH.

Andante.

p
1. Sweet to the morn-ing trav-el-ler The song a-mid the
2. And when be-neath th'un-cloud-ed sun Full wear-i-ly toils
sky, Where, twinkl-ing in the dew-y light, The sky-lark soars on
he, The flow-ing wat-er makes to him A sooth-ing me-lo-
f
high. And cheer-ing to the tra-vel-ler The gales that round him
dy. And when the ev'n-ing light de-cays, And all is calm a-
play, When faint and heav-i-ly he drags A-long the noon-tide
round, There is sweet mu-sic to his ear In the dis-tant sheep bell's
p
cres.
way. 3. But oh! of all de-light-ful sounds, Of ev'n-ing or of
sound.
f
morn, The sweet-est is the voice of love That welcomes his re-turn.

CHAPTER XLV.

The Minor Mode.

(*Prepare Figs.* 89, 90, 91 *and* 92.)

Touch on your hands and sing after me—

A scale of eight different sounds, separated by five tones and two semitones, is called a *diatonic* scale. The *order* of these tones and semitones—the particular manner or *mode* in which they can be arranged—will vary with the note on which the scale begins and ends. Were we to begin and end a scale of *unaltered* notes on *Re*, we should find the semitones falling between the 2nd and 3rd, and between the 6th and 7th sounds;—on *Mi*, between the 1st and 2nd, and the 5th and 6th sounds.

Fig. 89.

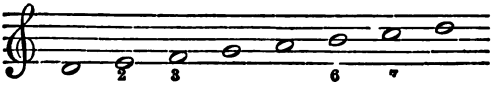
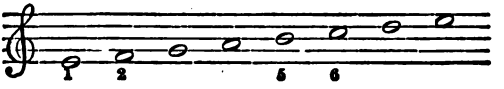


Fig. 90.



Such *modes* (of arrangement of tones and semitones) have been and may again be used in musical composition. But musicians now employ, almost exclusively, two of these (possible) modes; (1) the natural scale, that to which our practice has been hitherto confined, and all other scales constructed like it; and (2) that which begins and ends on the 6th sound of that scale, and all others like it; two modes exemplified in the scales of unaltered notes beginning and ending on *Do* and on (its 6th sound) *La*.

Fig. 91.

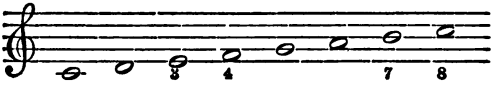
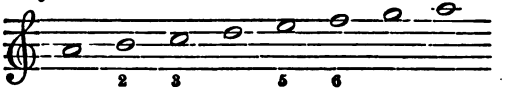


Fig. 92.



The order of tones and semitones—the *mode*—of these two scales is manifestly very different. In the former, as you know, the semitones fall between the 3rd and 4th and between the 7th and 8th sounds; in the latter, between the 2nd and 3rd and the 5th and 6th sounds. Both these scales are diatonic, because they include five tones and two semitones. But the former is said to be in the *major* mode, because its 3rd sound is a *major* third from the 1st; and the latter is said to be in the *minor* mode, because *its* 3rd sound is a *minor* third from the 1st. From *Do* to *Mi* is a major third, from *La* to *Do* a minor third.

This difference in the two modern modes is the *essential* difference between them. The one is major because the 3rd from its tonic is major, and *for no other reason;* the other is minor because the 3rd from its tonic is minor, and *for no other reason.*

The two modes differ in other respects, as we shall see presently. Let us, for the moment, consider their *essential* difference (in the quality of their thirds) only.

The passages we touched and sang just now were in the minor mode. Let us repeat them. (*To be done.*)

Of these passages *Do* is not, as it has so often been with us, the tonic, but the third from the tonic—the note on which alone, with satisfaction to the ear, a passage can be brought to an end. Moreover, this *Do* is a minor third from *La*, the major third to which is *Do*♯. Let us compare *Do* and *Do*♯ in their relation to *La*.

In singing, call *Do*♯ *Da*, with the *a*, as in *Fa*.

No. 78, an old English melody, is in the scale of *La* minor. It ends on *La*, the minor 3rd to which, *Do*, begins it, and is of frequent recurrence.

No. 78. SONG.

Andantino. Old English.

1st V. At the set - ting of the sun, When the west hath lost its
2nd V. There the night-bird's plain-tive note, Fall-ing gent - ly on the
glow, And the twinkl - ing stars come one by one, To the
ear, And the so - lemn bell - tow'r more re - mote, Tell the
hill - side let us go, To the hill - side let us go.
hour of rest is near, Tell the hour of rest is near.

CHAPTER XLVI.

The Minor Mode—*continued.*

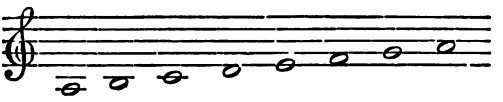
(*Prepare Figs.* 93, 94, 95, 96, 97, 98, 99, 100 *and* 101.)

THE *essential* difference between a minor and a major scale is that to which each owes its name; the 3rd sound of the former is a *minor* third, the 3rd sound of the latter a *major* third from its tonic.

This, however, is not the *only* difference between the two modes. A major scale is not liable to change in the quality of its intervals; a minor scale *is*—its *upper* tetrachord assuming no less than *three* different forms.

The natural minor scale (that of *La*) is deficient in a *leading note;* the 7th sound being a *tone*, not a semitone, below the 8th. (Fig. 93.)

Fig. 93. Semitone.



Now, a tetrachord in which the semitone is not the interval *last heard*, leaves no impression of completeness on the ear. The upper tetrachord of the natural minor scale, if not satisfactory, is tolerable *in descending;* because the semitone *is* then the interval last heard; but it is intolerable *in ascending*, because this condition is not then observed. (Compare Figs. 94 and 95.)

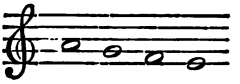
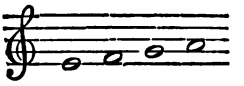
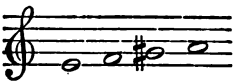
Fig. 94. 

Fig. 95. 

In *ascending* the minor scale, the last sound but one of the upper tetrachord is usually *raised* a *semitone*, whereby the scale is furnished with a *leading note.*

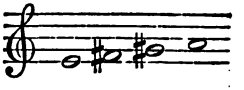
Fig. 96.



This elevation of the 7th sound of the minor scale induces generally, though *not always*, that of the 6th also. For, in diminishing the interval between the 7th and the 8th sounds, we augment that between the 6th and 7th to the same extent.

From *Fa* ♮ to *Sol* ♯ is an interval *greater than a tone*, and its introduction renders the upper tetrachord of *La chromatic.* Chromatic intervals are, in modern music especially, by no means forbidden, but their presence alters the character of a passage, and generally renders it more difficult of execution.

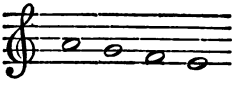
Fig. 97.



By raising the 6th sound a semitone as well as the 7th, the interval between the two is reduced to a tone. (Compare Figs. 96 and 97.)

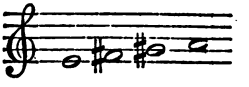
Thus, the upper tetrachord of a minor scale admits of three forms—two diatonic, one chromatic.

Fig. 98.



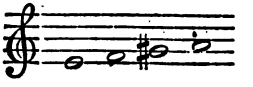
(1.) The natural (unaltered) diatonic form, rarely (or never) used but *in descending.*

Fig. 99.



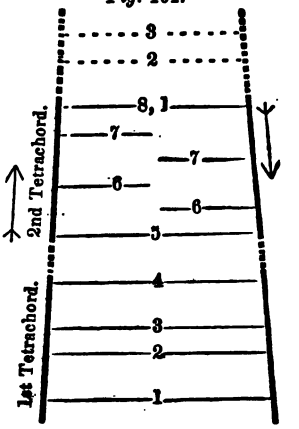
(2.) The altered diatonic form, chiefly used *in ascending.*

Fig. 100.



(3.) The chromatic form, used *both* in ascending and descending.

Fig. 101.



For the present we will confine ourselves to the 1st and 2nd of these forms, which are exhibited in Fig. 101, of which the lines to the left depict the ascending, and those to the right the descending minor scale in its two *diatonic* forms.

Sing, as I point to the lines representing each sound. Call *Sol*♯ *Sal*, and (as before) *Fa*♯ *Fe*.

The two Rounds which follow, and the *second* part of No. 81 (the first being a repetition of No. 78), present examples of the *altered* forms of the minor mode of *La*.

No. 79. ROUND.

J. A. Hiller.

No. 80. ROUND.

J. A. Hiller.

No. 81. SONG.

Andantino. Old English.

1st V. At the set - ting of the sun, When the west hath lost its
2nd V. There the night - in - gale's sad note, Fall - ing gent - ly on the
1st V. At the set - ting of the sun, When the west hath lost its
2nd V. There the night - in - gale's sad note, Fall - ing gent - ly on the
glow, And the stars come twinkl - ing one by one, To the
ear, And the so - lemn bell tow'r, more re - mote, Tell the
glow, And the stars come twinkl - ing one by one, To the
ear, And the so - lemn bell tow'r, more re - mote, Tell the

hill - side let us go, To the hill - side let us go.
hour of rest is near, Tell the hour of rest is near.
hill - side let us go, To the hill - side let us go.
hour of rest is near, Tell the hour of rest is near.

CHAPTER XLVII.

The Signatures of Minor Scales.

SCALES which result from different modes of arranging the same sounds are said to be *relative*. The natural scales of *Do* and *La* are therefore relative; and as the one is major and the other minor, the scale of *La* is said to be the relative *minor* of *Do*, and the scale of *Do* the relative *major* of *La*.

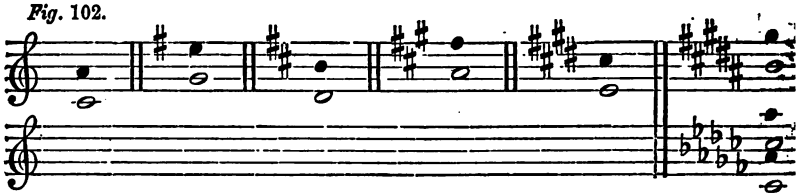
Every major scale has a relative minor, the tonic of which is its 6th sound.

The 6th sound of the scale of *Do* is *La*; *La*, therefore, is the relative minor to *Do*.

The sharps or flats, essential to the scale in which a musical composition is said to be, placed together at the beginning of each stave, form its (scale) signature.

Every minor scale bears the same signature as its relative major; the 6th and 7th sounds being altered, when necessary, by *accidentals*.

Fig. 102.



In Fig. 102 the signature of every major scale, *and of its relative minor*, is exhibited. It will be seen that—

The minor tonics, like the major, follow one another in an order of ascending and descending perfect *fifths*.

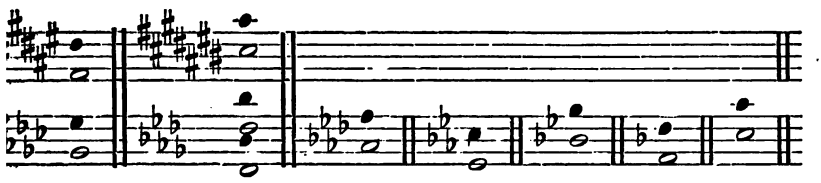
Fig. 102 is a transcript of Fig. 76, with the 6th to each major tonic added (in small black notes) above it. The 6th of a major scale is the *tonic* of its relative minor. The black notes therefore in Fig. 102 are the relative minors of the white notes beneath them, and the signatures belong equally to both.

The table may be *read* thus:—The relative minor of *Do* is *La*; signature, neither sharp nor flat. The relative minor of *Sol* is *Mi*; signature, *Fa*♯ And so on.

The signatures of minor scales being identical in every case with those of their relative majors, it is of course impossible to decide, *from the signature alone*, in what scale a piece of music may be. A slight inspection and a moment's consideration will, however, generally enable us to do so. With rare exceptions, every piece of music *ends* with the *triad*, or *common chord* of the tonic.

Thus, if a piece of *modern* music has for signature *two* sharps, it will certainly be *either* in the scale of *Re*, or in that of its relative minor, *Si*. If it is in *Re*, the last combination will be that of *Re* with its 3rd, 5th and (perhaps) 8th, *viz.*, *Re*, *Fa*♯, *La*, and *Re*; if it is in the scale of *Si minor*, the last combination will be that of *Si*, *viz.*, *Si*, *Re*, *Fa*♯, and *Si*.

A certain index of the minor mode is the frequent recurrence of the sharpened 7th and, with it, that of the sharpened 6th. The sharpened



7th of *Si* minor is *La*♯, the sharpened 6th, *Sol*♯. In a piece of music bearing *two sharps* for its signature, the presence of *La*♯, especially near the beginning or the end, would indicate the scale of *Si* minor.

The sharpened 6th is of *itself* (as will be shown hereafter) by no means so certain an index of the minor mode as the sharpened 7th. This, however, is attended with little inconvenience, since the former is generally followed immediately by the latter.

No. 82, which is in *Re* minor, bears the signature (*Si*♭) of *Fa*, its relative major.

Touch and sing the following—

No. 82.

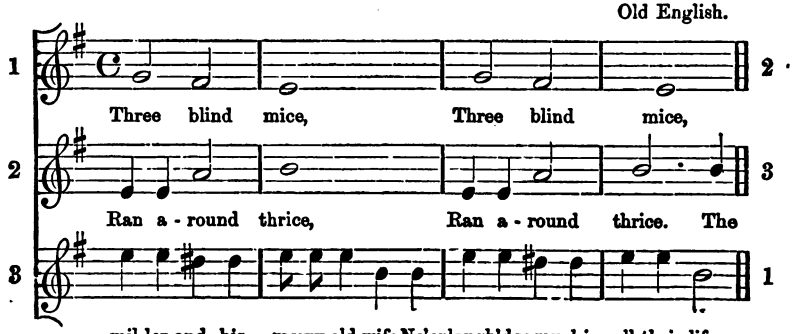
ROUND. Old English

1
2
3
Three blind mice, Three blind mice,
Ran a - round thrice, Ran a - round thrice. The
mil-ler and his merry old wife, Ne'er laugh'd so much in all their life.

No. 83 (a transposition of No. 82), which is in *Mi* minor, bears the signature (*Fa* ♯) of *Sol*, its relative major.

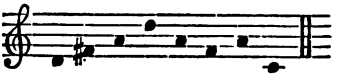
No. 83. ROUND.

Old English.

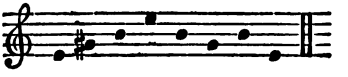


By the alteration of a single note, that of *Fa* to *Fe* in No. 82, and of *Sol* to *Sal* in No. 83, the *mode* of each may be changed from minor to major. *Fa* is the minor and *Fe* the major 3rd to *Re*; *Sol* is the minor and *Sal* the major 3rd to *Mi*.

Touch and sing the chord of *Re* major, and make the class sing No. 82, substituting *Fa* ♯ for *Fa* ♮.



Touch and sing the chord of *Mi* major, and make the class sing No. 83, substituting *Sol* ♯ for *Sol* ♮.



The two modes are very strikingly contrasted in the *Variable Chant*, the two forms of which differ chiefly, sometimes wholly, in having, the one a minor, the other a major third.

Let each part of each of the following forms be practised separately. Then form the class into three divisions, and have the two different forms sung alternately many times.

No. 84.

CHANT (in *La* minor).

No. 85.

The Same (in *La* major).

CHAPTER XLVIII.

Modulation—the Minor Mode.

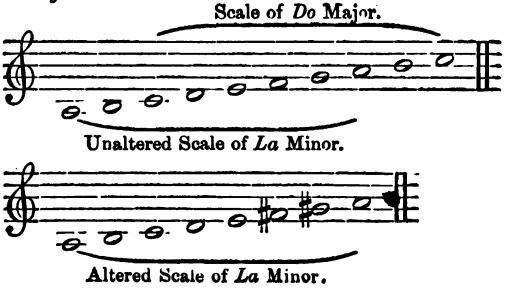
(*Prepare Figs.* 103 *and* 104.)

"MOST pieces of music, and even many passages, deviate into scales other than those in which they begin, and are therefore said 'to be.' This deviation, when made into scales connected with the original and principal scale, is called modulation. The scales most closely connected with one another are those which include the greatest number of notes in common." (Chap. XXXVIII.)

This rule is as applicable to minor as to major scales, though in observing it we obtain a different result. The scale *most* closely connected with any given minor scale is not its 5th above or below, but its relative major; for, *unaltered*, every note of the one is common to the other, and two notes only of the former admit of alteration.

Thus, the commonest and easiest modulation from *La* minor is into *Do* major, and, of course, *vice versâ;* because all the notes of the one scale, *unaltered*, belong to the other, and only two notes of the former, *Fa* and *Sol* (the 6th and 7th), admit of alteration.

Fig. 103.



In the following Solfeggio (a piece of music to be *solfaed*) a modulation is made from *La* minor, the principal scale, into its relative major *Do*, and back again.

No. 86.

SOLFEGGIO.

Allegretto. Music by JOHN HULLAH.

Other modulations, however, are frequently made besides that exemplified in No. 86. These are generally into scales connected (having many notes in common) with the original and principal scale. Thus, a piece in *La* minor, like No. 86, might modulate into *Mi* or *Re* minor (the 5th above and below *La*), or into *Sol*, or even *Fa* major (the dominant and subdominant of *Do*).

No. 87 is in *Re* minor. It presents examples of modulation into *La* minor (the 5th above *Re*) and into *Fa* (the relative major of *Re*).

Modulations into minor scales are generally to be recognised by their *altered* 6th and 7th. Thus, in No. 87, *Fa* ♯ and *Sol* ♯ are the 6th and 7th of *La* minor.

Touch and sing with me—

No. 87.

SONG.

The Words by BYROM. The Music by JOHN HULLAH.

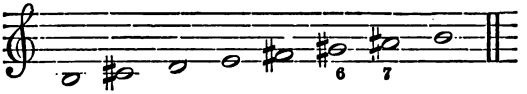
Andante.

Time that is past thou ne - ver can'st re -
Time that is past thou ne - ver can'st re -
call; Of time to come thou art not sure at
call; Of time to come thou art not sure at
all; Time pre - sent on - ly is with - in thy
all; Time pre - sent on - ly is with - in thy
pow'r; And there - fore now im - prove the pre - sent hour.
pow'r; And there - fore now im - prove the pre-sent hour.

No. 88 is in *Mi* minor. It presents examples of modulation into *Si* minor (the 5th above *Mi*) and into *Sol* (the relative major of *Mi*).

Sol♯ and *La*♯ are the altered 6th and 7th of *Si* minor.

Fig. 104.



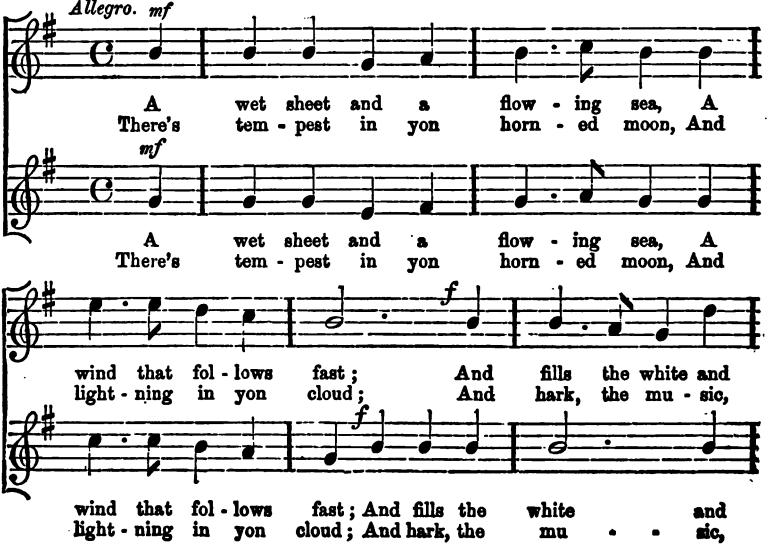
In singing, call *Sol*♯ *Sal*, and *La*♯ *Le*.

Touch and sing with me—

No. 88.

SONG.

The Words by ALLAN CUNNINGHAM. The Music by JOHN HULLAH.


Allegro. mf
A wet sheet and a flow - ing sea, A
There's tem - pest in yon horn - ed moon, And
mf
A wet sheet and a flow - ing sea, A
There's tem - pest in yon horn - ed moon, And
f
wind that fol - lows fast; And fills the white and
light - ning in yon cloud; And hark, the mu - sic,
f
wind that fol - lows fast; And fills the white and
light - ning in yon cloud; And hark, the mu - sic,

rust - ling sail, And bends the gal - lant mast; And
ma - ri - ners, The wind is pip - ing loud; The
rust - ling sail, And bends the gal - lant mast; And
ma - ri - ners, The wind is pip - ing loud; The
bends the gal - lant mast, my boys, While like the ea - gle
wind is pip - ing loud, my boys, The light - ning flash - ing
bends the gal - lant mast, my boys, While like the ea - gle
wind is pip - ing loud, my boys, The light - ning flash - ing
free, A - way the good ship flies, And leaves Old
free; The hol - low oak our pa - lace is, Our
free, A - way, A - way the good ship flies, And leaves Old
free; The hol - low oak, the oak our pa - lace is, Our
Eng - land on the lee.
he - ri - tage the sea.
Eng - land on the lee.
he - ri - tage the sea.

CHAPTER XLIX.

Semiquavers and Demisemiquavers.

(*Prepare Figs.* 105, 106, 107, 108 *and* 109.)

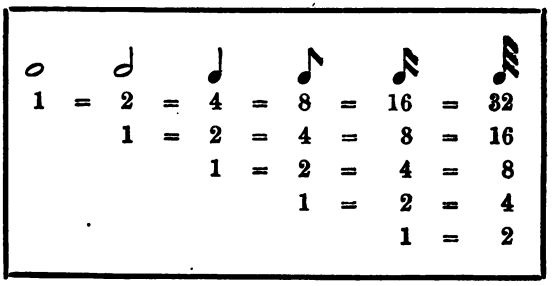
We must now complete our stock of notes by the addition of the semiquaver and demisemiquaver. *Demi*, like *semi*, means half. A semiquaver, therefore, is half a quaver, and a demisemiquaver half a semiquaver; or, in other words, two semiquavers equal (last as long as) one quaver, and two demisemiquavers equal one semiquaver.

Six forms of note only are commonly used in modern music; the semibreve, the minim, the crotchet, the quaver, the semiquaver, and the demisemiquaver; and each of these presented in this order is half the length of the one before it, or double the length of the one after it.

The *breve*, which is double the length of the semibreve, is rarely found but in ancient music, or music written in an ancient style.

The proportions of these notes one to another are shown at a glance in the following table:—

Fig. 105.



Beat a measure of duple time and sing the scale of *Do*, making each note a semiquaver, *i.e.*, singing *Do*, *Re*, *Mi*, *Fa*, to the first beat, and *Sol*, *La*, *Si*, *Do*, to the second, several times in succession.

Sing these sounds downwards in like manner.

Read and then sing the following—

No. 89.

No. 90.

No. 91.

No. 92.

The semiquaver is much used to complete the beat formed by the dotted quaver. Read and then sing No. 93.

No. 93.

No. 94. SONG.

Vivace. Air, "Sheriff Muir."

1st Ver. Will ye go to She - riff Muir, Gal - lant John of
2nd Ver. There you'll see the ban - ners flare, There you'll hear the
In - nis-ture; There to see the no - ble Mar, And his High-land
bag - pipes roar, And the trum-pets' dead - ly blare, With the can-nons'
lad - dies; All the true men of the north, An - gus, Hunt - ly,
rat - tle. There you'll see the bold Mac Craws, Cam' - ron and Clan -
and Sea - forth, Scour - ing on to cross the Forth,
ron - ald raws; All the clans, with loud huz - zas,
With their white cock - a - des?
Rush - ing to the bat - tle.

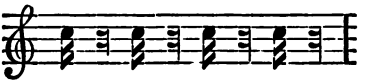
Semiquavers are frequently found in *groups* of four, eight, or more. Such groups should be *vocalized*, in solfaing, or singing without words, *i.e.*, the name of the first note of each group, or even succession of groups, should be carried on through all the notes.

Fig. 106.

Look at Fig. 106, an extract from Handel's Oratorio, "Judas Maccabeus." Here the composer has shown unequivocally that he intends eight groups of four semiquavers each and a crotchet (thirty-three notes in all) to be sung to the one syllable "praise." The passage may be *vocalized* in three different ways: (1) to the syllable *Fa, throughout;* (2) to the syllables which begin each group of *eight* semiquavers—*Fa, Sol, La, Si;* and (3) to the syllables which begin each group of *four*. None of these modes of vocalizing, however, are applicable, save at a somewhat rapid pace; nor need the subsequent adoption of any one of them prevent the solfaing (naming each individual note) of passages exceptionally difficult.

Give examples of these different processes.

The short perpendicular lines placed over many of the notes in No. 95 are *dashes*. A dash indicates that the note over or under which it is placed is to be made *very short;* the remaining time due to it being filled up by silence. The first complete bar of No. 95 might be written thus:—

Fig. 107. 

A *dot* similarly placed shows that the note under or over it is to be made short, but not *so* short as a note under or over a dash.

Figs. 108 and 109 are identical.

Fig. 108. *Fig.* 109.

Clearly the dashed or dotted form is the more simple.

No. 95. ROUND.

Andante. SABBATINI.

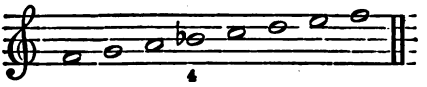
CHAPTER L.

Modulation—the Major Mode.

(*Prepare Figs.* 110, 111, 112, 113, 114, 115, 116, 117 *and* 118.)

The signature of No. 95 shows that it is in *Fa*. It presents an example of the commonest modulation—that into the scale of the dominant, *Do*. Of the scale of *Fa Si*, the 4th, is the only altered note.

Fig. 110.



Sing the scale of *Fa* with the manual signs of tone and semitone. Call *Si* ♭ *Se*.

Of the scale of *Do*, *Si* (flat in *Fa*) is the 7th, and therefore natural, as are all its constituent notes.

Sing the scale of *Do* with manual signs.

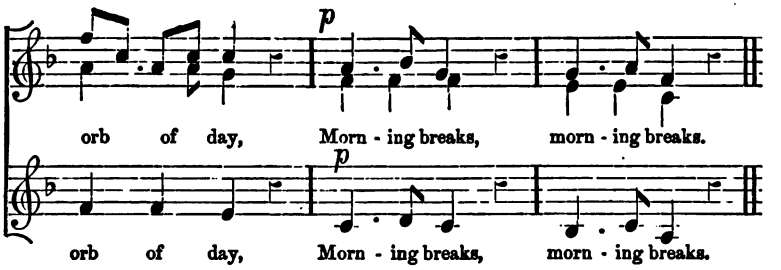
Touch and sing with me—

No. 96.

SONG.

Adagio. Music (slightly altered) by NÆGELI.

mf
p cres.
Morn - ing breaks, Morn - ing breaks, Ev' - ry liv - ing
mf
p cres.
Morn - ing breaks, Morn - ing breaks, Ev' - ry liv - ing
f
p
crea - ture wakes; O'er the landscape gent - ly steal-ing
f
p
crea - ture wakes; gent - ly steal-ing,
cres.
f
Pas - ture green and wood re - veal-ing, Ri - ses bright the
cres.
f
Pas - ture green and wood re - veal-ing, Ri - ses bright the



No. 97 is also in *Fa*. It presents an example of modulation into the scale of the relative minor, *Re*. Of the scale of *Re* minor, identical in its unaltered form with that of *Fa*, *Si* and *Do*, the 6th and 7th, are variable notes.

Fig. 111.

Touch and sing with me—

No. 97.

SONG.

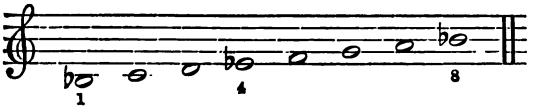
Words by MOORE. Irish Melody.

Andantino.

1st V. 'Tis the last rose of sum-mer, Left bloom-ing a-
2nd V. So soon may I fol-low, When friend-ships de-
lone; All her love-ly com-panions Are fa-ded and
cay, And from love's shin-ing cir-cle The gems drop a-
gone; No flow'r of her kin-dred, No rose-bud is
way! When true hearts lie wither'd, And fond ones are
nigh, To re-flect back her blushes, Or give sigh for sigh.
flown, Oh! who would in-ha-bit This bleak world a-lone.

No. 98 is in *Si* ♭. It presents examples of modulation into the scales of the dominant, *Fa*, and the subdominant, *Mi* ♭. Of the scale of *Si* ♭ the 1st and 4th are flattened notes.

Fig. 112.



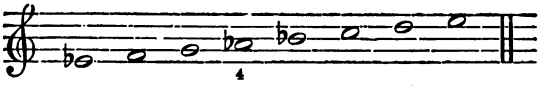
Sing the scale of *Si* ♭, with the manual signs of tone and semitone. Call *Si* ♭ *Se*, and *Mi* ♭ *Me* (pronounced *May*). (*To be done.*)

Of the scale of *Fa*, *Mi* is the 7th, and therefore natural. Its 4th, *Si*, is flat.

Sing the scale of *Fa*, with the manual signs.

Of the scale of *Mi* ♭ *La* is the 4th, and therefore flat.

Fig. 113.



Sing the scale of *Mi* ♭, with the manual signs. Call *La* ♭ *Lo*.

Touch on your hands and sing with me—

The small note (*Fa*) at * in No. 98 is an *appogiatura*, or *leaning note;* it displaces—throws later—the note which follows it, robbing it of its emphasis and a portion of its length.

In general, the appogiatura takes *half* the length of the note which it displaces; but its full time should be given to it, whatever be its form; the following note being shortened accordingly.

Figs. 114 and 115 are severally identical in effect with 116 and 117.

Fig. 114.

Fig. 115.

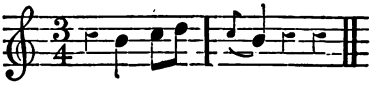


Fig. 116.

Fig. 117.

No. 98.

ROUND.

Words by Mrs. HUNTER. Music* by W. HORSLEY, Mus. Bac., Oxon.

Cheerfully.

1
The vil-lage bells ring mer - ri - ly, The milk-maids sing so
2
With flow'ry wreaths and ro - ses crown'd Now May-day comes its
3
The May - pole rears its
p
cheer - i - ly, The vil - lage bells ring me - ri - ly, The milk-maids sing so
p
an - nual round, May - day comes its an - nual, an - nual
dim.
head so gay,

* Printed, and transposed from the original scale *Do* (C), by permission of the Composer.

cheer - i - ly, The milk - maids sing so cheer - i - ly.
round, Now May - day comes its an - nual round.
While on the turf all dance and play, on the turf all dance, dance and play.
2
3
1

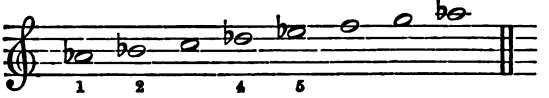
No. 99 is in *Mi* ♭. It presents examples of modulation into the scales of its dominant, *Si* ♭, and of its subdominant, *La* ♭. Of the scale of *Mi* ♭, the 1st, 4th, and 5th are flattened notes.

Sing the scale of *Mi* ♭, with the manual signs. Call *La* ♭ *Lo*.

Of the scale of *Si* ♭, *La* is the 7th, and therefore natural.

Of the scale of *La* ♭, the 1st, 2nd, 4th, and 5th are flattened notes.

Fig. 118.



Sing the scale of *La* ♭, with the manual signs. Call *Re* ♭ *Ra* (the *a* as in *f*ather).

Touch on your hands and sing with me—

No. 99.

SEA SONG.

Music by NÆGELI.

Allegro.
O'er the bright wa - ters we ma - ri - ners sail;
O'er the bright wa - ters we ma - ri - ners sail;
Ne - ver a - lone with the blue sea a - round us,
Ne - ver a - lone with the blue sea a - round us,
E - ver at home when there's no - thing to bound us,
E - ver at home when there's no - thing to bound us,

Brav - ing the storm and en - joy - ing the gale.
Brav - ing the storm and en - joy - ing the gale.
Hope ev - er near us, Rea - dy to cheer us,
Hope ev - er near us, Rea - dy to cheer us,
Hope, the true com - rade that ne - ver shall fail.
Hope, the true com - rade that ne - ver shall fail.

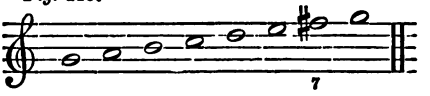
CHAPTER LI.

Modulation—the Major Mode—*continued.*

(*Prepare Figs.* 119, 120 *and* 121.)

No. 100 is in *Sol.* It presents examples of modulation (at *) into its sub-dominant, *Do*, and (at †) into its dominant, *Re.* Of the scale of *Sol Fa* only, the 7th, is a sharpened note.

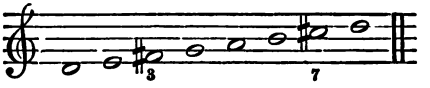
Fig. 119.



Sing the scale of *Sol*, with the manual signs. Call *Fa* ♯ *Fe.*

Of the scale of *Re*, the 3rd, *Fa*, and 7th, *Do*, are sharpened notes. Call *Do* ♯ *Da.*

Fig. 120.



Sing the scale of *Re*, with the manual signs.

Of the scale of *Do Fa* (sharp in *Sol*) is the 4th, and therefore **natural.**

Touch and sing the following, or any similar passages, the pupils imitating.

No. 100. SONG.

The Words by OLIPHANT. The Music arranged from a Swiss Air.

Andante.

cres.
1. Gen - tle moon, gen - tle moon, Do not hide thy sil - ver
2. Star of eve, star of eve, Deign to lend thy twin - kling
3. Balm - y sleep, balm - y sleep, Be thou near on down - y
cres.
Gen - tle moon, Do not hide thy sil - ver
Star of eve, Deign to lend thy twin - kling
Balm - y sleep, Be thou near on down - y
p
light: Drear - y is the way be - fore us,
ray: While our hymn of praise is swell - ing,
wing: Lo, where home at length ap - pear - ing,
p
light: Drear - y is the way be -
ray: While our hymn of praise is
wing: Lo, where home at length ap -
Sha - dowy clouds are dark - 'ning o'er us.
To the sky where is thy dwell - ing,
Sight to way - worn tra - v'ller cheer - ing,
fore us,
swell - ing,
pear - ing,
Sha - dowy clouds are dark - 'ning
To the sky where is thy
Sight to way - worn tra - v'ller

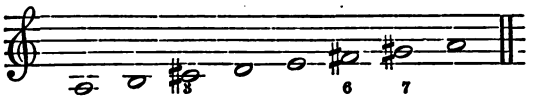
cres.
f
p
Chill - ing fall the dews of night. Gen - tle
Guide us on our lone - ly way. Star of
Bids us wel - come while we sing. Balm - y
cres.
f
o'er us, Chill - ing fall the dews of night.
dwell - ing, Guide us on our lone - ly way.
cheer - ing, Bids us wel - come while we sing.
pp
moon, gen - tle moon, gen - tle moon.
eve, star of eve, star of eve.
sleep, balm - y sleep, balm - y sleep.
p
pp
Gen - tle moon, gen - tle moon.
Star of eve, star of eve.
Balm - y sleep, balm - y sleep.

No. 101 is in *Re.* It presents an example of one modulation into the dominant, *La*, and of an accidental, *Si* ♭, not indicative of modulation. Of the scale of *Re* the 3rd and 7th are sharpened notes.

Sing the scale of *Re*, with the manual signs.

Of the scale of *La* the 3rd, 6th, and 7th are sharpened notes.

Fig. 121.



Touch and sing with me—

No. 101. ROUND.

Adagio. FERRARI.

1
2
3
Eve - ning sha - dows length - en round us,
Eve - ning sha - dows length - en round us,
Eve - ning sha - dows length - en round us,
Soon will the light of day Fade from the sight away,
Soon will day Fade a - way,
Soon will the light of day Fade from the sight a - way,
cres.
p
Kind com - pan - ions, Fare ye well.
cres.
p
Kind com - pan - ions, Fare ye well.
cres.
p
Kind com - pan - ions, Fare ye well.

No. 102 is in *La.* It presents an example of one modulation into the subdominant, *Re.* Of the scale of *La*, the 3rd, 6th, and 7th—*Do*, *Fa*, and *Sol*—are sharpened notes.

Sing the scale of *La*, with the manual signs. Call *Sol*♯ *Sal.*

Of the scale of *Re*, *Sol* is the 4th, and therefore natural.

Touch and sing with me—

No. 102.

CRADLE SONG.

Andantino. WILHEM.

p
Lul - - - - - - - la - by,
p
Lul - - - - - - la - by,
mf
dim.
An - gels watch o'er thee, Sent from a - bove - -
mf
dim.
An - gels watch o'er thee, Sent from a - bove,
f
dim.
Dreams be be - fore thee Of plea - sure and love.
f
dim.
Dreams be be - fore thee Of plea - sure and love.

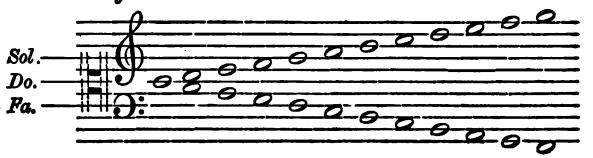
CHAPTER LII.

Notation. The Great Stave.

(*Prepare Figs.* 122, 123 *and* 124.)

THE treble stave, as we have seen, can be extended upwards or downwards by the addition of *leger* lines, the occasional use of which enables us to write on it exceptionally high or low notes for voices of the same class—those of women and children. When, however, we have to write for the voices of men, which on an average are *an octave lower* than those of women and children, we add below the treble stave, not leger lines—troublesome both to write and to read—but continued lines like those which form the stave itself. *All* the notes (twenty-three) used in average vocal music can be placed on a *Great Stave* of eleven lines.

Fig. 122.



"There are in use three *clefs*, each of which stands for a particular sound." (Chap. XIV.) The *Sol* clef, as you know, stands for the 5th sound of the natural scale, as sung by women and children; the *Do* clef stands for the 1st sound of that scale; and the *Fa* clef stands for the sound a 5th below that 1st.

These clefs determine the names of notes on the same lines, and therefore above and below the same lines, as those on which they severally stand.

Give examples on Fig. 122.

No *individual* voice can utter *all* the sounds represented in Fig. 122.

Consequently, in writing music for individual voices, a smaller number of lines suffices. Practically, whether for vocal or instrumental music, staves of *five* lines are generally used; the particular sets most used being the five highest and the five lowest of the *Great Stave* above.

The upper of these sets of five lines forms the stave from which, so far, you have exclusively read. It is used for voices and instruments of higher pitch; the lower stave being used for voices and instruments of lower pitch. As the former is known as the Treble Stave, so is the latter as the *Bass* Stave; and as the treble stave is headed by the treble, or *Sol* clef, so is the bass stave by the bass or *Fa* clef.

Fig. 123.

The two staves are joined by a *brace*, when used for *pianoforte* music, or music in "short score;" the upper stave being chiefly occupied by the notes to be played by the *right* hand, or sung by the higher voices; the lower by those played by the *left*, or sung by the lower voices.

When the middle line of the Great Stave is required, it is added to either of the smaller staves as a *leger* line. When *more than one* leger line has to be added to the top of the bass stave it must be considered as an *extract* from, or an encroachment on, the treble stave; *vice versâ*, when more than one leger line has to be added to the *bottom* of the treble stave it must be considered as an extract from, or encroachment on, the bass stave. (See Fig. 124.)

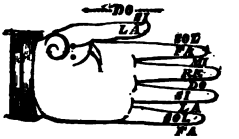
Fig. 124.

Familiarity with the positions of notes on *both* these staves is useful, and even necessary, not only to those for whose particular voices the one or the other is used, but to all who desire to understand the relations of other parts to their own.

CHAPTER LIII.

The Bass Stave.

(*Prepare Figs.* 125 *and* 126.)



RAISE your *left* hands with the palms towards you, and the fingers a little separated.

Place your own (*left*) *hand so that the palm can be seen by your pupils, as in the drawing.*

With the first finger of your right hand touch the 4th, or "little" finger of left, as I do (between the joints), then the 3rd, then the 2nd, then the 1st, and then the thumb.

In like manner touch the spaces between your fingers.

Now touch your fingers and the spaces between them again, and name after me the notes occupied by each. *Fa* stands on the 1st finger, *Sol* in the space between it and the thumb, *La* stands *on* the thumb, *Si* rests *above* it, and *Do* is indicated by slightly raising the index finger. Again: *Fa* stands *on* the 1st finger, *Mi* between it and the second, *Re* on the 2nd, *Do* between it and the 3rd, *Si* on the 3rd, *La* between the 3rd and the 4th, *Sol* on the 4th, and *Fa* below it.

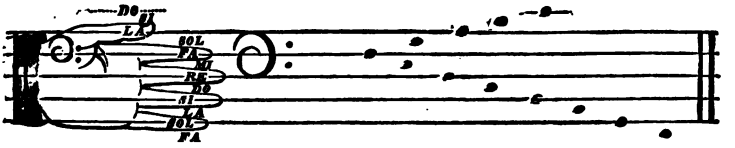
Look at my hand and name the notes which occupy the positions I touch.

Now touch on your own hands and sing what I teach.

To a class of women and children it should be explained that the sounds they will utter will be an octave higher *than those represented; just as those sung by a class of men reading from the treble stave would be* an octave lower.

From the use of the manual stave to that of the written or printed stave the step is an easy one. Look at Fig. 125. The lowest, or 1st line, answers to the little finger; the space between the 1st and 2nd line to that between the little finger and the next above it; and so on.

Fig. 125.



Name the following notes as I point to each.

Fig. 126.

No. 103 is a Canon in two parts. The "canon," or rule of it, is that the 2nd voice, or set of voices, begins at A when the 1st arrives at B; the 2nd imitating the 1st at the distance of a measure throughout; finishing, of course, a measure later.

No. 103.

CANON.

DURANTE.

CHAPTER LIV.

Chromatic Intervals.

(*Prepare Figs.* 127, 128, 129, 130, 131 *and* 132.)

A SERIES of eight different sounds, the extremes of which are octaves to each other, separated by *five* tones and *two* semitones, forms a *diatonic* scale.

The two semitones essential to the diatonic scale are called *diatonic* semitones. Two sounds separated by a diatonic semitone are invariably of *different* names.

A *chromatic* semitone is the interval between two proximate sounds of the *same* name, *one* of which is *altered* by a sharp or flat.

"Between every two sounds separated by a tone, an intermediate sound may be placed, whereby the tone is divided into two semitones." *One* of these two semitones will, of necessity, be *chromatic*.

Fig. 127. Diat. Sem. Chrom. Sem.

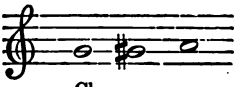
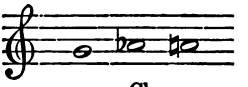


Fig. 128. Diat. Sem. Chrom. Sem.



In Fig. 127, the first semitone (*Sol–Sol* ♯) is *chromatic*, the second (*Sol* ♯*–La*) is diatonic. In Fig. 128, the first semitone (*Sol–La* ♭) is *diatonic*, the second (*La* ♭*–La* ♮) is chromatic.

Intervals resulting from any arrangement or juxtaposition of notes found in the *same* diatonic scale are called *diatonic* intervals.

The diatonic intervals (compare Chap. XXIX.) are major and minor seconds and thirds, and their inversions minor and major sevenths and

sixths; perfect fourths, and their inversions perfect fifths; pluperfect fourths, and their inversions imperfect fifths (of each of which the same diatonic scale never includes but *one*); and the octave, of which the inversion is the *unison*—not properly an interval.

Intervals of which the upper notes are raised, or the lower depressed, to the extent of a *chromatic* semitone, are said to be *augmented.* Intervals of which the upper notes are lowered, or the lower notes raised, to the extent of a chromatic semitone, are said to be *diminished.*

The unison, major second, perfect fifth, and major sixth admit of *augmentation* only; and their several inversions, the octave, minor seventh, perfect fourth, and minor third, of *diminution* only.

The unison, though "not an interval," is, for the sake of system, often classed as such. The *augmented* unison, *i.e.*, chromatic semitone, is the agent of all augmentation and diminution, and therefore the most important of chromatic intervals.

The *augmented* unison, second, fifth, and sixth, and their inversions, the *diminished* octave, seventh, fourth, and third, are classed under the general name of *chromatic intervals.*

Fig. 129 contains an example of each of the chromatic intervals.

Fig. 129. Augmented Intervals.

Diminished Intervals.

A scale which contains one or more chromatic intervals is called a *chromatic scale.*

The third form of the minor mode (Chap. XLVI.) is chromatic, because its 6th and 7th sounds are separated by an *augmented* second.

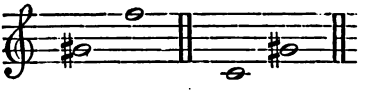
Of the chromatic intervals (Fig. 130) the augmented *second* and diminished *fourth* are more frequently used, especially in *melody*, than any others—because they can be produced by the juxtaposition of notes which form part of the *same* (minor) scale.

Fig. 130. Scale of *La* minor.

Fig. 131.

Fa and *Sol*♯ form an augmented second; *Sol*♯ and *Do* a diminished fourth. The latter interval includes the two most characteristic notes of the scale in which it is found—the leading note and the 3rd.

Fig. 132.



The inversion of the first of these intervals, the diminished seventh, is more sparingly, and that of the latter, the augmented fifth, hardly ever used in melody.

The diminished third and the augmented sixth are of still less frequent occurrence; the former being, by some theorists, considered altogether inadmissible in *harmony*, the latter in *melody*.

Touch and sing with me some examples of the chromatic semitone, diminished fourth, augmented second, and diminished seventh.

The chromatic minor scale, ascending and descending, forms the Bass of No. 104, and the Treble of No. 105.

No. 104.

SOLFEGGIO.

Andante.

No. 105.

SOLFEGGIO.

Inversion of Fig. 104.

CHAPTER LV.

Different Forms of Measure in Duple and in Triple Time.

(*Prepare Figs.* 133, 134, 135, 136 *and* 137.)

A MEASURE of duple time consists of two *times* or beats; a measure of triple time of three. The beat is more often represented in modern music by the crotchet than any other form of note. Measures consisting of two, four, or three crotchets, or their equivalents, are more common than any others.

But the value of a note is only comparative. A semibreve is equal to two minims, four crotchets, and so on, *in the same passage with it;* but the semibreve itself has no fixed duration; on the contrary, its duration is infinitely variable.

Any form of note therefore may be used to represent the beat in any kind of time. Formerly, the beat was generally represented by the minim; subsequently, the crotchet took its place. It is now sometimes even represented by the quaver; and it has, though much more rarely, been represented by the semiquaver.

So that the same passage could be written in measures of two, four, or three *minims, crotchets, quavers,* or even *semi*quavers, each; and provided the beats were made at the same pace—*i.e.*, provided the minim in the first instance were as long as the crotchet in the second, the quaver in the third, and the semiquaver in the last—no difference in their effect would be perceptible to the ear. On this condition, Figs. 133, 134, 135 and 136—so different to the eye—are identical.

Fig. 133.

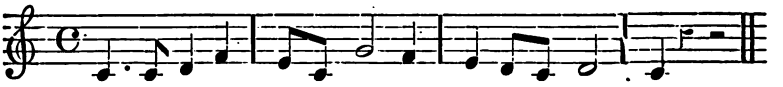


Fig. 134.

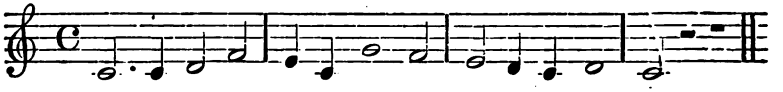
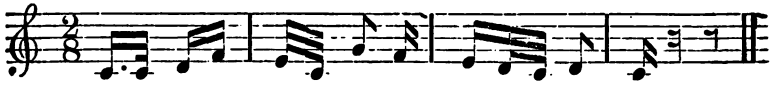


Fig. 135.

Fig. 136.



Semibreves and even breves have been, and demisemiquavers and even semidemisemiquavers might be employed to represent the beat in any kind of time. Generally, however, as we have seen, the beat is represented, in modern music, by the crotchet, and in ancient music, by the minim.

No. 106 is in common time of four *crotchets* in a measure. No. 107 is in common time of four *minims* in a measure—its original form. Read and sing first one and then the other; remembering that whereas of No. 106, each ♩ = 1 beat, each 𝅗𝅥 = 2 beats, and each ♪ = ½ a beat; of No. 107, each 𝅗𝅥 = 1 beat, each 𝅝 = 2 beats, and each ♩ = ½ a beat.

Call attention to the modulations (*in Nos.* 106 *and* 107) *into the subdominant*, Si ♭, *dominant*, Do, *and relative minor of the subdominant*, Sol; *and prepare for them by touching a few passages on the hand.*

No. 106.

SOLFEGGIO.

J. A. Hiller.

Allegro.

No. 107.

SOLFEGGIO.

J. A. Hiller.

Allegro.

Pieces written in the older form of No. 107, are often translated into the more modern form of No. 106. Such translation is not, however, always made in modern editions of ancient music. Resort is had to the more simple, though less faithful, process of cutting each measure into two, leaving the notation untouched. No. 108 is identical with No. 107, save that each measure of the former contains half the notes of each measure of the latter. In performing No. 108, therefore, two beats, instead of four, each equal to a minim, must be made. If the beat in each instance be made *at the same pace*, the effect will be the same, so far as the *pace* is concerned. There will be, however, this very important difference, in their general effect, between the two: that whereas in No. 107, which is in *quadruple* time, a principal emphasis falls on one only out of every four beats; in No. 108, which is in *duple* time, a principal emphasis falls on every alternate beat, an effect musically inferior. (Compare Chap. XXVI.)

Read and sing No. 108, making *two* beats only in each measure.

Half of the semibreve divided by the bar (at *) belongs to the first, and half to the second of the two measures in which it stands.

Notes occupying portions of two measures are now commonly repeated and connected by a tye. (See Fig. 137.)

Fig. 137.

No. 108.

SOLFEGGIO.

J. A. Hiller.

Allegro.

CHAPTER LVI.

Time—Simple and Compound.

(*Prepare Figs.* 138, 139, 140, 141, 142 *and* 143.)

Music of which the times or beats can be divided, *ad infinitum*, by *two*, is said to be in *simple* time. All the music we have as yet sung is in simple time; for the value of each beat is in every case an *entire* note—a crotchet, a minim, or a quaver—divisible by two, *ad infinitum*.

Compound time arises from a mixture of the two species, duple and triple; each beat, in a measure of compound time, being a *dotted* note—divisible by *three*.

A measure is said to be in duple or in triple time, according to the number of beats into which it is divisible; it is said to be in *simple* or in *compound* time, according to the *sub*division (duple or triple) of which each beat is capable.

Figs. 138 and 139 are *both* in duple time, because each measure of both consists of two beats; but whereas Fig. 138 is in *simple* duple time, because each beat is an *entire* note, divisible, *ad infinitum*, by *two*, Fig. 139 is in *compound* duple time, because each beat is a *dotted* note, divisible by *three*.

Fig. 138.

Fig. 139.

Figs. 140 and 141 are both in triple time, because each measure consists of three beats; but whereas Fig. 140 is in *simple* triple time, because each beat is a *whole* note, Fig. 141 is in *compound* triple time, because each beat is a *dotted* note.

Fig. 140.

Fig. 141.

In a measure of *simple* time there is but *one* principal emphasis—that on the first *beat;* in a measure of *compound* time there is often (and always may be) a *subordinate* accent—on the first *note* of each *beat.*

In Fig. 142, besides the principal emphases (on *songs* and *rus*), there are subordinate accents (on *shep* and *round*), necessitated by the subdivision of the *beats* to which those notes belong.

Fig. 142. Old English Air.

When a beat, in a measure of compound time, consists of a *single note*, the subordinate emphasis is not felt; the time is compound *to the eye* only.

In the first measure of Fig. 143 there is no subordinate emphasis; the second beat is entirely filled by the single note over the syllable *way.* In the second measure, the subordinate accent is indispensable, because the second beat consists of *three* notes. The *third* measure is *practically* in simple time; both the beats consist of *single notes.*

Fig. 143.

The beats, as well in compound as in simple time, are sometimes (more especially when the *pace* is very slow) subdivided.

Thus four beats might be made to each measure of Fig. 138, or six to each measure of Fig. 139, were they to be sung at a slow pace. This, however, is a matter simply of practical convenience, in no way inter-

fering with the real divisions of the measure. Fig. 139 could, by no possibility, be regulated by *four* equal beats, nor Fig. 138 by *three*.

The forms of measure most often used in compound common, and in compound triple, times are exhibited in the following exercises.

The signature of compound common time of two dotted crotchets in a measure is $\frac{6}{8}$; that of compound triple time of three dotted crotchets in a measure is $\frac{9}{8}$. (See the next Chapter.)

The forms of measure in Nos. 114 and 120, though occasionally used, are objectionable, from their giving an impression *to the eye* of $\frac{3}{4}$ and of $\frac{3}{2}$ time.

Read and then sing Nos. 109 to 114, making two beats in a measure.

No. 109.

No. 110.

No. 111.

No. 112.

No. 113.

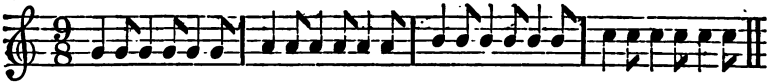
No. 114.

Read and then sing Nos. 115 to 120, making three beats in a measure.

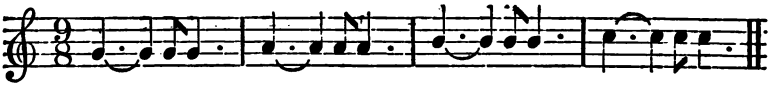
No. 115.

No. 116.

No. 117.



No. 118.



No. 119.

No. 120.

No. 121.

SONG.

Words by ROGERS. Music by POHLENZ.

Allegretto.

The sun - beams streak the a - zure skies, And
The goats wind slow their wont - ed way, Up
And while the tor - rent thun - ders loud, And
line with light the moun - tain's brow, the moun - tain's
crag - gy steeps and ridg - es rude, and ridg - es
as the e - choing cliffs re - ply, the cliffs re -
pp
cres.
brow, the moun - tain's brow; With hounds and horns the
rude, and ridg - es rude, Mark'd by the wild wolf
ply, the cliffs re - - ply, The huts peep o'er the
hunt - ers rise, And chase the roe - buck through the snow.
for his prey, From de - sert cave or hang - ing wood.
morn - ing cloud, Perch'd like an ea - gle's nest on high.
With hounds and horns the hunt - ers rise, With hounds and horns the
Mark'd by the wild wolf for his prey, Mark'd by the wild wolf
The huts peep o'er the morn - ing cloud, The huts peep o'er the
With hounds and horns the hunt - ers rise, With hounds and horns the
Mark'd by the wild wolf for his prey, Mark'd by the wild wolf
The huts peep o'er the morn - ing cloud, The huts peep o'er the

p
hunt - ers rise, And chase . . . the roe - - - buck through . . the
for his prey, From de - - - - sert cave, . . . or hang - - - ing
morn - ing cloud, Perch'd like . . . . an ea - - - gle's nest . . . on
p
hunt - ers rise, And chase the roe - buck through the
for his prey, From de sert cave, or hang - ing
morn - ing cloud, Perch'd like an ea - gle's nest on
snow, And chase the roe - - - - buck through the
wood, From de - sert cave . . . . or haug - ing
high, Perch'd like an ea - - - - gle's nest on
snow, And chase the roe - - - - buck through the
wood, From de - sert cave . . . . or hang - ing
high, Perch'd like an ea - - - - gle's nest on
snow.
wood.
high.
snow.
wood.
high.

CHAPTER LVII.

Time Signatures.

(*Prepare Figs.* 144, 145, 146 *and* 147.)

THE number, emphasis, and kind of the notes contained in each measure of a musical movement are indicated by the *time signature*, placed at the beginning of it, immediately after the *scale* signature.

Time signatures consist, for the most part, of *fractions*—having reference to the modern *whole note*, the semibreve; the fraction showing how much of, or how much more than, a *semibreve* each measure contains.

Thus $\frac{2}{4}$ indicates a time of two crotchets, *i.e.*, *two fourths* of a semibreve, in a measure; $\frac{6}{8}$, a time of six quavers, *i.e.*, *six eighths* of a semibreve, in a measure.

Quadruple, or *common*, time of four crotchets in a measure is generally indicated by a character, $\mathbf{C}$; it might be indicated by 1, $\frac{2}{2}$, or $\frac{4}{4}$.

"$\mathbf{C}$ is not, as might be supposed, the initial letter of the word *common*, but properly a half circle, the symbol of what was once regarded as *imperfect* time, in contradistinction to *perfect*, or triple time, formerly indicated by an entire circle." (Chap. XXVI.)

Thus, at the opening of a movement we find commonly three characters, or groups of characters—the clef, the scale signature, and the time signature. The first two are usually repeated at the beginning of *every* stave of each part; the last is never expressed *but once* in each part—at the beginning.

Fig. 144 is the commencement of a movement, or "part," on the treble stave, in the *scale* of *Mi* ♭, and in "three-four" time, *i.e.*, time of three *crotchets* in a measure.

Fig. 144.

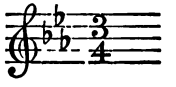
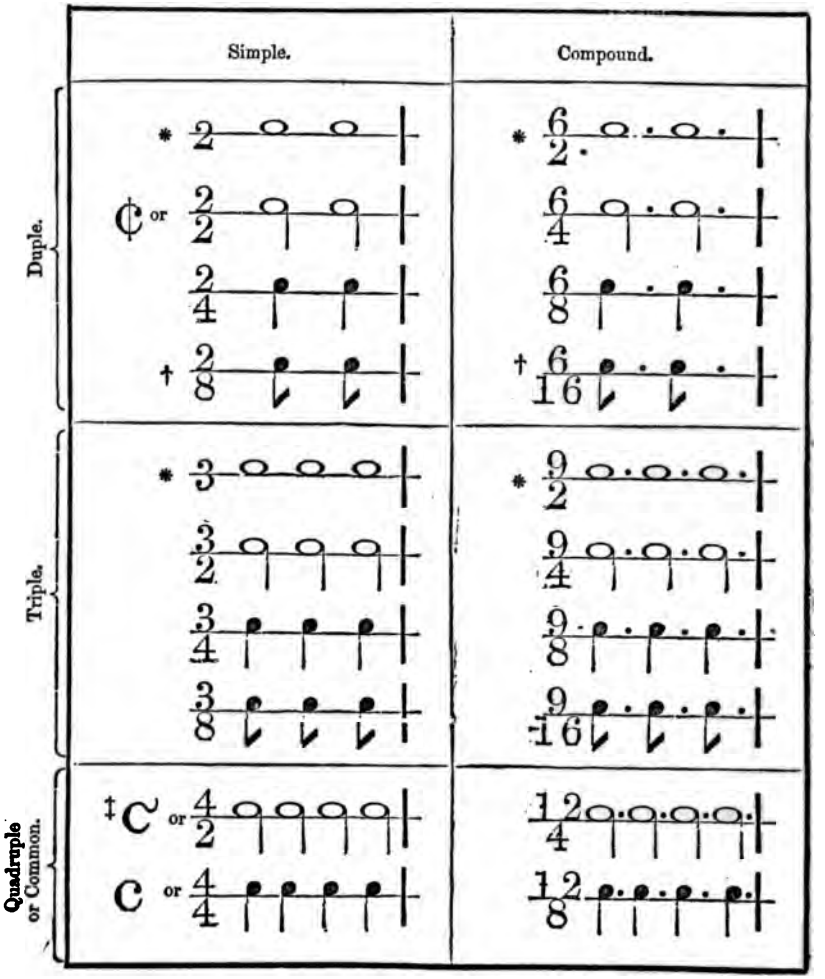


Fig. 145.

Table of Time Signatures.



In Fig. 145 all the time signatures in common use are exhibited. The *number* of the notes following each signature shows the *number of beats* in each measure; the *form* of each note shows the *value* of each beat.

The forms marked * are only found in ancient music; those marked † are modern, but rarely used.

Musical practice is not consistent in regard to the character marked ‡; some composers designating $\frac{4}{2}$ time by 𝄵 and others by 𝄡, or even 𝄴 (the sign of $\frac{4}{4}$ time), restricting 𝄵 to $\frac{2}{2}$ time. It is greatly to be wished that all three characters were banished from the time table, and that time signatures were confined to numbers.

The numerator in *triple* time signatures is always an *odd* number; in *duple* and *quadruple* time signatures an *even* number—where numbers are used.

The fractions in time signatures are not always expressed in their simplest forms, *i.e.*, reduced to their lowest terms. Nor could this reduction be made in every instance with safety; seeing, for example, that $\frac{3}{4}$ and $\frac{6}{8}$ are the signatures of two kinds of time *differing in every essential particular*.

$\frac{3}{4} = \frac{6}{8}$. A measure with the former signature may, and often does, contain the same *number* of the same *kind* of notes as a measure with the latter sigature, *viz.*, *six quavers*. Yet $\frac{3}{4}$ being the signature of *simple triple*, and $\frac{6}{8}$ of *compound duple*, time the emphasis of those six quavers will be altogether different.

The natural divisions (times or beats) of a measure of $\frac{3}{4}$ time are *crotchets*, of which it will contain *three*, or their value. The natural divisions of a measure of $\frac{6}{8}$ time are *dotted* crotchets, of which it will contain *two*, or their value. These divisions are generally expressed by the *grouping*. (Figs. 146 and 147.)

Fig. 146.

Fig. 147.

Our system of time signatures is still far from perfect; it is, however, universally accepted and (among musicians) understood. As any change in the alphabet of a universal language like music is likely to be made very slowly, and as no change would affect *existing music*, you must be content, for the present, to remember that though in *arithmetic* $\frac{2}{4} = \frac{8}{8}$, in *music*, those fractions represent things essentially different.

CHAPTER LVIII.

The Tenor and Alto Staves.

(*Prepare Figs.* 148, 149, 150 *and* 151.)

"ALL the notes (twenty-three) required for *average* vocal music can be placed on a stave of *eleven* lines." But "no *individual* voice can utter" twenty-three sounds. Consequently, in writing music for individual voices, a smaller number of lines suffices. "Practically, whether for vocal or instrumental music, staves of *five* lines are generally used; the *particular sets*, or staves, *most* used being the five highest and the five lowest of the Great Stave" of eleven. (Chap. LII.) "The upper one of these is used for voices and instruments of higher pitch; the lower, for voices and instruments of lower pitch."

"Music for the *lower* voices of women and the *higher* voices of men demands *other* staves, which are, equally with the treble and bass staves, extracts from, or parts of, the Great Stave of eleven lines."

The voices of men (beginning from the lowest) are Bass, Barytone, Tenor, and Counter-tenor; those of women are Contralto, Mezzo-soprano, Soprano, and Treble. The highest of the former, the Counter-tenor, is almost identical in *compass* with, though very different in

quality from, the *lowest* of the latter, the Contralto. The Treble may be regarded rather as a *puerile* than a female voice.

The places, in the musical system, of these voices is exhibited in Fig. 148, and those of the *different staves* they occupy in relation to the Great Stave, in Fig. 149.

Fig. 148.

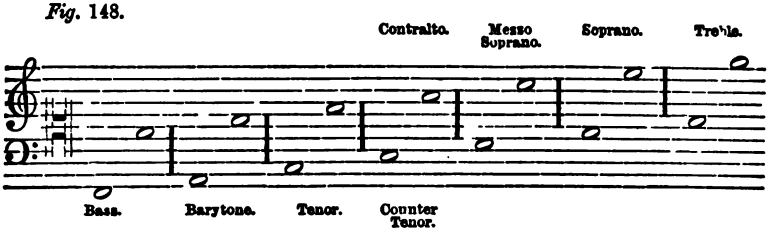
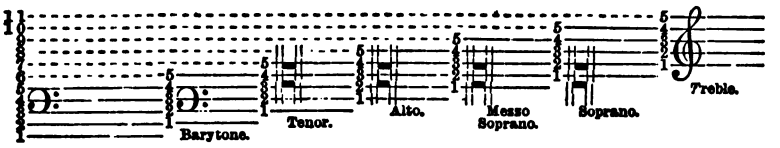


Fig. 149.



Of the seven staves (in Fig. 149) two are headed by the *Fa* clef, four by the *Do* clef, and one only by the *Sol* clef.

The 4th line of the Great Stave (indicated by the *Fa* clef), is also the 4th line of the bass stave; but it is the 3rd line of the barytone stave, the 2nd of the tenor, and the 1st of the contralto.

The 6th, or middle, line of the Great Stave (indicated by the *Do* clef), which forms no part of the bass or of the treble stave, is the 5th line of the barytone, the 4th of the tenor, the 3rd of the contralto, the 2nd of the mezzo-soprano, and the 1st of the soprano.

The 8th line of the Great Stave (indicated by the *Sol* clef), which forms no part of the bass, barytone, or tenor stave, is the 5th line of the contralto stave, the 4th of the mezzo-soprano, the 3rd of the soprano, and the 2nd of the treble.

Two of these staves, the barytone and the mezzo-soprano, have become obsolete. Music for the barytone voice is now commonly written on the bass stave; music for the mezzo-soprano voice, on the contralto, the soprano, and even the treble stave, which latter, in England, is generally substituted for the soprano.

The treble stave was once used exclusively for *instrumental* music, and has not even yet been *universally* adopted for vocal. The soprano stave is still much used on the Continent.

Thus the staves in actual use, anywhere, are but five, and, in England, only four—the *bass* and *tenor* for the voices of men, the *contralto* (or *alto*) and *treble* for the voices of women and children.

The bass and treble staves, the lowest and the highest of the Great Stave of eleven lines, can need no further explanation; it only remains for us to consider the tenor and contralto.

On the 4th line of the tenor stave is found the *Do* clef. (See Fig. 149.) The *Do* clef, it will be remembered, marks the 6th, or *middle*, line of the Great Stave of eleven lines. Consequently, the 4th line of the *tenor* stave is identical with the 6th of the Great Stave; and, further, the 1st, 2nd, 3rd, and 5th lines of the former are identical with the 3rd, 4th, 5th, and 7th of the latter.

On the 3rd line of the contralto stave (See Fig. 149) is also found the *Do* clef, which marks the 6th or middle line of the Great Stave. Consequently, the 3rd line of the contralto stave is identical with the 6th of the Great Stave; and, further, the 1st, 2nd, 4th, and 5th lines of the former are identical with the 4th, 5th, 7th, and 8th lines of the latter.

Familiarity with the tenor and contralto staves is only to be attained by practice; but it is certain that the difficulty sometimes attendant on this arises entirely from the fact that their *relation* to the Great Stave, and therefore to the more familiar treble and bass staves, is not at all, or but imperfectly, understood. One stave is, of course, of itself, as easily mastered as another; and any difficulty found in reading from the tenor

and alto staves must arise from a hitherto exclusive use of the treble and bass.

Let the following facts be borne in mind :—

The 1st, 2nd, and 3rd lines of the tenor stave are identical with the 3rd, 4th, and 5th of the bass; the top line of the tenor stave is identical with the bottom line of the treble; and the 4th (or clef) line of the tenor stave is that leger line which connects the bass with the treble. (Fig. 150.)

The 1st and 2nd lines of the contralto stave are identical with the 4th and 5th of the bass; the 4th and 5th lines of the contralto stave with the 1st and 2nd of the treble; and the 3rd (or clef) line of the contralto stave is identical with the *leger* line connecting the bass with the treble. (Fig. 151.)

Fig. 150.

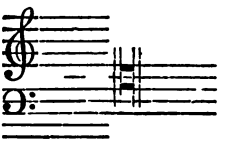
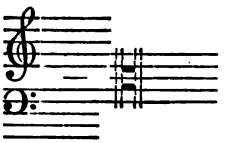


Fig. 151.



Notwithstanding the recent multiplication of editions of popular musical works, in which parts for alto and tenor voices are printed on the treble stave (the former sometimes, and the latter always, *an octave higher than their proper pitch*), anything like an extensive acquaintance with music is still, and must long remain, unattainable without familiarity with the alto, tenor, and soprano staves.

No. 122 presents examples of all the modulations in most common use. The close of each phrase (marked by a pause) is made in a different scale: that of the first in *Sol* (the dominant); of the second in *La* (the relative) minor; of the third in *Re* (the relative minor of the sub-dominant); of the fourth in *Mi* (the relative minor of the dominant);

of the fifth in *Fa* (the subdominant); of the sixth and last only in *Do* (the original scale). The parts are printed in their proper clefs.

The several parts may be read *successively by students with whatever kind of voice. As a matter of practice they may even be so* sung: *it being understood that the tenor and bass parts will be an octave higher than their proper pitch when sung by women or children, and the treble and contralto an octave lower when sung by men.*

No. 122.

CHORALE.

J. A. Hiller.

Lento.

CHAPTER LIX.

Words relating to Pace, Intensity, and Style.

THE vocabulary of music has been enriched, or corrupted, by the contributions of every people among whom musical composers, performers, or even transcribers, have been found. *Lively, Doucement, Feirlich*, &c. &c., are used severally to indicate the pace, intensity, or style of music printed in England, in France, or in Germany.

These words carry with them the disadvantage of being intelligible only to the people of those countries, or to those who have studied their language—a disadvantage the more to be deprecated from the fact that musicians possess a sort of common language in Italian, the musical terminology of which is more or less accepted by every musical people.

A complete list of Italian words relating to pace, intensity, and style, would furnish material for a Musical Dictionary. The following lists contain some of the most important, classed under their several heads.

The English words immediately following the Italian are such *literal* translations as would be found in a dictionary. They represent very imperfectly the meanings of the latter as applied to music, which, indeed, are only to be ascertained from a close study of Italian, or considerable experience in musical performance. Thus, *Grave*, *Lento*, and *Largo*, may be regarded as equivalents, so far as *pace* only is concerned; but each indicates a different *style* of performance—*Grave* implying more solemnity than *Lento*, and *Largo* more dignity or *breadth* than either.

Words relating to pace, intensity, and style, admit generally of *contraction*, as well as of modification, by the *augmentation* or *diminution* for which the Italian language presents such facility. Sometimes two or more are joined together in a way that appears somewhat contradictory, until it is understood that they refer not only to pace, but to *style* also. Thus, *Allegro Andante* means lively in *manner*, but somewhat deliberate in *pace*.

Each of the words in Fig. 152, excepting the three first, may be considered to express a quicker movement than the one before it.

Fig. 152.

Words relating to Pace.

GRAVE, *grave.*
LENTO, *slow.*
LARGO, *broad.*
LARGHETTO, *rather broad, not so slow as* LARGO.
ADAGISSIMO, *very leisurely, slower than* ADAGIO.
ADAGIO, *leisurely.*
ANDANTINO, *going gently, slower than* ANDANTE.
ANDANTE, *going at a moderate pace.*
ALLEGRETTO, *rather merry, not so fast as* ALLEGRO.
ALLEGRO, *merry, lively.*
PRESTO, *quick.*
PRESTISSIMO, very *quick.*

Connected with the above are the following:—

Fig. 153.

ACCELERANDO,* ACCEL°., *accelerating (the pace).*
RALLENTANDO,* RALL°., *slackening* (——).
STRINGENDO, STRIN°., *pressing onwards.*
PIÙ MOSSO, *more moved, quicker.*
RITARDANDO, RITAR°., *retarding.*
RITENUTO, RITEN°., *holding back.*
A TEMPO, *in time (after an* ACCEL°. *or* RALL°.).
IN ISTESSO TEMPO, *in the same time;* i.e., *the times, or* beats, *the same, whatever be the* forms *of the notes.*
ALLA BREVE, *by the breve;* i.e., *the breve being regarded as the* whole note; *each* beat *being a* minim.
TEMPO ORDINARIO, *(in) ordinary time* } *neither fast nor slow.*
—— COMODO — *convenient* — }

* * These words are *correlatives.*

Modern composers frequently add to the words above, an *exact* indication of the pace of their music, by a reference to the Metronome. (See Chap. LX.)

Fig. 154. *Words relating to Intensity.*

PIANO,* PIA., *p, soft.*
MEZZO PIANO, MEZ. PIA., *mp, rather soft.*
PIANISSIMO, PIAN^{mo}., *pp, very soft.*
FORTE,* FOR., *f, loud.*
MEZZO FORTE, MEZ. FOR., *mf, rather loud.*
FORTISSIMO, FOR^{mo}., *ff, very loud.*
CRESCENDO,† CRES., *or* <, *increasing (in loudness).*
DECRESCENDO,† DECRES., *or* >, *decreasing (in loudness).*

To the above may be added:

FORTE PIANO, *fp, loud and (immediately after) soft.*
SFORZATO, *sz, forced (applicable to single notes only).*
RINFORZANDO, RINFORZ., *forcing (applicable to passages).*
CALENDO, *descending*
PERDENDOSI, *losing itself*
DIMINUENDO, *diminishing*
SMORZANDO, *extinguishing* } *decreasing in* speed *and (generally) in intensity.*
DOLCE, *soft.*

* † These and their dependent words are *correlatives.*

All these words are liable to modification by the addition of one or more others, expressive partly of pace, but more especially of style. The following are some of the most important of them :—

Fig. 155.

Words relating (chiefly) to Style.

AGITATO, agitated.	MAESTOSO, majestic.
ANIMATO, animated.	MARCATO, marked.
A POCO A POCO, by degrees.	MOLTO, much, very.
ASSAI, sufficiently.	MENO, less; *e.g.*, Meno Allegro.
BEN, well; *e.g.*, Ben Marcato.	MEZZO, half.
BRILLANTE, brilliant.	MODERATO, moderate.
CON, with.	NON, not; *e.g.*, Non troppo Lento.
(CON) BRIO, mirth.	PIÙ, more; *e.g.*, Piu Animato.
—— ESPRESSIONE, expression.	POCO, little.
—— FUOCO, fire.	QUASI, almost, as though.
—— MOTO, motion.	SEMPRE, always; *e.g.*, Sempre *pp*.
—— TENEREZZA, tenderness.	SOSTENUTO, sustained.
ESPRESSIVO, expressive.	STACCATO, cut off.
GIUSTO, exact.	TENUTO, held sustained.
GRAZIOSO, graceful.	VIVACE, lively.
LEGATO, bound.	VOLTI, turn.
MA, but; *e.g.*, Ma non Rall°.	SEGUE, it follows.

The majority of words in Fig. 152 are also occasionally used as noun-substantives. We speak of *an* Adagio, *an* Andante, *an* Allegro—as of movements to be performed in the styles indicated by those words.

CHAPTER LX.

Pace. Division of Beats. The Metronome.

A MUSICAL foot consists of two or of three "times." As a rule, the *time* and the *beat* are identical; we make two beats to a measure of two times, and three to a measure of three. But the *pace* at which any measure or series of measures should be executed may, and often does, necessitate a *subdivision* of such times and a multiplication of such beats. Practically, this is most clearly and conveniently made by the *repetition* of beats, easily effected without changing their direction or character. Thus, a measure of $\frac{2}{4}$ time, especially when consisting of many notes, performed at a very slow pace, will require for its regulation *four* beats. If these be made as in C time (down, left, right, up), there will be danger of confounding the value of the quaver in the one time with that of the crotchet in the other. If, on the contrary, each of the *two* beats properly due to the measure be made *twice*—the latter less obviously and emphatically—the time or natural divisions of the measure will remain undisturbed, while the advantages of subdivision will be none the less perfectly attained. So with every other kind of *simple* time.

Compound times require a still further subdivision—that of each time into *three*. A measure of $\frac{6}{8}$ time performed at a slow pace will require for its regulation *six* beats, *three* to each time, *i.e.*, *dotted* crotchet. Under the same circumstances, a measure of $\frac{9}{8}$ time will require *nine* beats, and a measure of $\frac{12}{8}$ time *twelve*. If these beats be merely repetitions—always less obviously and emphatically made—of the two, three,

or four *principal* beats due to each time (dotted crotchet) in each several instance, every purpose of beating will be attained.

The exact *pace* at which music should be performed, and the number of beats made to it, can now be indicated beyond the possibility of any serious misunderstanding of the intention of the composer.

At the beginning of many recently published pieces may be noticed a single note, followed by the sign of equality and a number, all three generally enclosed in brackets. These have reference to the *Metronome.*

Maelzel's Metronome consists of a pendulum, having an index, which is furnished with a weight, moveable along its whole length. On the position of this weight depends the *pace* at which the pendulum will oscillate to and fro, *i.e.*, the number of oscillations it will make in a given time. The figures on the index indicate this number *per minute*, supposing the weight to be placed immediately under any one of them. Thus, if the top of the weight be placed against the line marked 160, the pendulum will make 160 vibrations *per* minute; if it be placed against the line 50, it will make 50 vibrations *per* minute; the former being the largest, the latter the smallest, number possible for this particular pendulum.

A composer or editor who desires to indicate the *exact time* at which a given movement is to be performed, has only to mark against the form of note which represents each beat the figure under which the weight is to be placed on the index, and the pendulum will oscillate at the pace at which each beat is to be made.

Thus (♩= 100), means that each crotchet is to be performed, and each beat (equal to a crotchet) made, in the time of one oscillation of the pendulum, when the weight is placed against the line marked 100.

THE END.